Insights in leadership in education 2022

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Insights in leadership in education: 2022

Topic editor

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Editorial: Insights in leadership in education: 2022

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KEYWORDS

leadership, collaboration, student learning, education, courage

Editorial on the Research Topic

Insights in leadership in education: 2022

This collection of articles provides an overview of educational leadership as we emerge from the pandemic crisis into a divisive era characterized by political unrest, social and cultural upheaval, and persistent economic hardship. Across the globe, leaders in primary, secondary and tertiary institutions are faced with the challenges of making up for student learning loss during the pandemic, educator burn out, parental and community concerns about curriculum content, mental health issues and the impact of artificial intelligence on education. Education leaders are taxed with meeting these challenges with scant resources in a conservative policy climate that favors traditionalism at the expense of a liberal progressive outlook.

The nine articles included in this Research Topic offer a variety of perspectives on issues pertaining to education leadership. Orr's overview of leader preparation in "Reflections on leadership preparation research and current directions," reinforces the importance of leadership outcomes – particularly those related to improvement of student learning. Now recognized as a field of its own, the study of leadership preparation has developed over the past 20 to 30 years. Yet we know little about the relationship of preparation to leadership effectiveness in facilitating marginalized and under-represented students' academic achievement. Orr identifies partnerships between schools and universities as a key element of quality preparation programs in the U.S. echoing a more general commitment to collaborative approaches to leadership development and institutional effectiveness.

For instance, Pashmforoosh et al.'s study of 40 school leaders who participated in virtual professional learning communities (VPLC) found these communities of practice across schools in Texas were instrumental in building principals and assistant principals instructional leadership capacity. "Building school leaders' instructional leadership capacity through virtual professional learning communities," highlights the effectiveness of community building through collaboration. Participants worked with each other to identify creative solutions to problems of practice in their high-needs schools.

In another example of collaboration, Washington and Johnson, in their article, "Toward culturally sustaining/revitalizing indigenous family-school-community leadership," identify promising leadership models that are more respectful of indigenous communities' self-determination over education. The collaborative partnerships advocated in this review are focused on learning from the indigenous communities' ways of knowing, being and doing to craft education policies and practices to benefit indigenous students and their families.

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Fahrenwald et al. also focus on collaborative partnerships between higher education institutions and the civil society in Austria. "Taking the lead for campus-community-partnerships" is a brief research report, which raises questions about how these CCPs are led, managed, and sustained. Their research findings indicate that despite the importance attached to the potential of CCPs to foster social innovation through collective action, there is little institutional support for them. Most are initiated voluntarily by mid-career women faculty members. To realize the potential of these partnerships, the authors recommend greater institutional commitment and maintenance of support.

Another article that focuses on higher education discusses the results of a PhD program evaluation. In "Leadership in PhD (LeaP): a longitudinal leadership skill building program for underrepresented biomedical research trainees," Doles et al. found the program effective in helping underrepresented biomedical research trainees build community and develop new leadership skills. The positive feedback from students suggests possibilities for the LeaP model to be adapted for other health professional programs designed to increase diversity in the field.

Klinck et al. studied School Management Teams (SMT) in South Africa to understand better the necessary competencies, abilities and attitudes that lead to improved service delivery. Findings reported in "Creating a high-performing school management: bringing talent to the table for effective service delivery" include a set of desirable interpersonal skills, managerial skills, emotional intelligence, effective communication, and team building skills. The authors recommend that the SMTs are provided training and development to strengthen these skills in order to provide better social justice education and increased academic achievement.

Finally, three articles consider different approaches to including transformational leadership, leadership and servant leadership. In "Transformational leadership, educational leaders inspire school educators' commitment," Kareem et al. studied the effect of leader's transformational style on teacher commitment in India. They found that the positive effect of this kind of leadership encouraged a culture of collaboration and self-development. Steilen and Stone-Johnson report on a study of elementary principals' caring leadership during the pandemic. In ""There wasn't a guidebook for this": caring leadership during a crisis," the authors advocate for in-service and pre-service leadership development to help leaders prioritize care as central to their work not only for others but also for themselves. And Dami et al. discuss the results of a study of Christian higher education lecturers in Indonesia in their article "Servant leadership and job satisfaction: the mediating role of trust and leader-member exchange." They found that servant leadership positively influences trust, leader-member exchange and job satisfaction.

At the heart of most of these articles is an interest in understanding better how education leaders work impacts others - students, community members and other educators. They illustrate the primary focus of leadership research over the past 20 years, which has been on the relationship between leadership and student learning. These articles contribute to this important agenda by offering different theoretical and conceptual approaches to leadership, global perspectives, and a variety of education settings. Moving forward, as the negative effects of racism, sexism, ableism, homo-and transphobia, and anti-migrant policies and practices place increasing numbers of our communities in jeopardy, courageous education leadership is imperative for the wellbeing of future generations. My hope is that in the next decade, education scholars and researchers commit to generating new knowledge of how leadership matters in the lives of those served. Leadership is fundamentally about prioritization and decision-making that has the power to elevate human potential or stifle it. To ensure the former, we will need a concerted global effort on the part of the academic community partnering with education practitioners, community members and students themselves.

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Servant leadership and job satisfaction: The mediating role of trust and leader-member exchange

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Objective: The study aimed to examine the role of trust mediation and leader-member exchange in the influence of servant leadership on job satisfaction.

Background: Research on the relationship between servant leadership and academic job satisfaction is rare. The study of servant leadership in Christian higher education is dominated by non-research (conceptual), literature review, and church ministry, instrument development, verification, and validation, quantitative (pre- and post-test), quantitative (descriptive), and qualitative studies. Thus, there have been no studies that test and measure complex variables simultaneously in one model that includes servant leadership, trust (job-related outcomes + mediator), leader-member exchange (behavioral outcome), and job satisfaction (well-being + outcome) in the context of Christian higher education in Indonesia. Servant leadership still needs to be done in work-related outcomes such as trust variables. Research on academic job satisfaction in non-European and non-Western contexts is still dominant in Palestine. Finally, the placement of trust as a mediation variable needs to be more consistent because trust also has a role as a predictor of servant leadership.

Method: This study used quantitative methods with a sample of 160 lecturers from 26 Christian higher education in Indonesia. This study used the partial least square (PLS-SEM) approach to verify the proposed hypothesis.

Results: The results showed that servant leadership has a significant positive effect on job satisfaction and trust, and LMX mediate the influence of servant leadership on job satisfaction. Finally, trust and LMX are complementary mediation effects of servant leadership on job satisfaction.

Conclusion: Servant leadership increases trust, LMX and job satisfaction. Trust and LMX increase job satisfaction. Trust and LMX have a mediating role in the effect of servant leadership on job satisfaction.

Implications: Rectors/chairmen who engage in high-level interactions with lecturers will influence trust, reduce losses, and maximize gains in their interactional relationships. In addition, based on the theory of leader-member exchange, high-quality, trustworthy, and satisfactory leader-member

exchange relationships positively affect the personal growth, work attitudes, and performance of lecturers. The Private Higher Education Organizing Body (BPPTS) needs to prepare for leadership regeneration by preparing future service leaders through training that directly supports the improvement of servant leadership behavior. This is important because servant leadership behavior becomes essential to increase trust, LMX and lecturer job satisfaction and achieve Christian higher education goals. Finally, Power distances, short-term orientation cultures, and paternalistic are not found to be obstacles to servant leadership practices in Indonesian Christian higher education.

KEVWODD

servant leadership, trust, job satisfaction, leader-member exchange, complementary mediation, Christian higher education

Introduction

In higher education, job satisfaction is considered the backbone of academic work (Byrne et al., 2012; Htun, 2022) since dissatisfied academics are more likely to quit their jobs (Strawser et al., 2000). Albert et al. (2018) argue that the high turnover of academic personnel, caused by dissatisfaction, may be dangerous for higher education institutions because it contributes to the transfer of valuable educational capital with very expensive staff substitutions. Satisfied academic staff perform better and help improve the performance and build the reputation of academic institutions by influencing student learning outcomes (de Lourdes Machado-Taylor et al., 2014).

Furthermore, previous studies have found several factors that determine the job satisfaction of academic staff. Among such factors are the work environment (Ghasemy et al., 2020; Mgaiwa, 2021), job security (Cerci and Dumludag, 2019), expectations of research support (Ababneh, 2020), research productivity (Albert et al., 2018), salary perceptions (Bozeman and Gaughan, 2011), procedural and distributive justice (Park, 2018), work-life balance (Dorenkamp and Ruhle, 2019), the support of the head of the study program and the dean, promotion and tenure, scholarship, and collegiality (Szromek and Wolniak, 2020). Additionally, leadership is an important catalyst in encouraging academic staff satisfaction (Alonderiene and Majauskaite, 2016). Leader support is key for faculty because it conveys a positive message that leads to more productivity and satisfaction (Park, 2018).

Servant leadership is necessary for mastering the challenges of the 21st century (Parris and Peachey, 2012). Outside of academia, other professionals such as theologians and practitioners have adopted servant leadership (Langhof and Güldenberg, 2020). The results show that 21st-century leadership is servant leadership because it is the main determinant of organizational success (Claar et al., 2014; Rao et al., 2019) and positively influences organizational functioning (Hashim et al., 2019; Lee et al., 2020). Servant leadership is perceived as an important organizational variable that has a

significant impact on follower behavior (Al-Asadi, 2019), and inspires followers in helping achieve organizational goals (Liden et al., 2008; Senjaya and Pekerti, 2010; Mustapha, 2019). The servant leadership style differs from other value-based styles in giving priority to developing and empowering followers (Choudhary et al., 2013; Brown and Bryant, 2015). Based on this perspective, servant leadership is a viable leadership theory and is considered an important field of research because it has the potential for success that will in turn impact organizations and improve followers' welfare (Harrison, 2017; Eva et al., 2019).

Servant leadership has a unique philosophy of 'serving others' and is an important organizational factor that influences employee behavior and attitudes (Liden et al., 2008; Parris and Peachey, 2013; Eva et al., 2019). As a result, servant leadership has received increased interest in studying its impact on academic staff in higher education (Aboramadan et al., 2020b). Alonderiene and Majauskaite (2016) state that servant leadership has the most significant positive influence on job satisfaction among all leadership styles. The results show that most studies have analyzed the effect of servant leadership on job satisfaction in universities in countries such as Oman, Turkey, and Italy (Singh and Ryhal, 2021). Nevertheless, there is a lack of research on leadership in higher education (Esen et al., 2018). More specifically, with a few exceptions (Latif and Marimon, 2019; Aboramadan et al., 2020a; Dahleez et al., 2021), research on servant leadership in higher education is limited and requires more attention. Research on the relation between servant leadership and academic job satisfaction is rare (Latif et al., 2021).

Servant leadership studies in the context of higher education have been carried out in various countries, such as Palestine (Aboramadan et al., 2020a,b), Germany (Moll and Kretzschmar, 2017), America (Sahawneh and Benuto, 2018; Gooch et al., 2021), Turkey (Erkutlu and Chafra, 2015), Pakistan (Amin et al., 2019; Haider et al., 2020; Saleem et al., 2020), Ethiopia (Gedifew and Bitew, 2019; Bitew and Gedifew, 2020), the Philippines (Ramos, 2020), Arab (Shafai, 2018), Kuwait (Alshammari et al., 2019), and Spain and China (Latif and Marimon, 2019; Latif,

2020). In Indonesia, servant leadership research in higher education is related to measuring, verifying, and validating the dimensions of servant leadership (Handoyo, 2010; Melinda et al., 2020), the influence of servant leadership on lecturer performance through trust in leaders (Filatrovi et al., 2018; Keradjaan et al., 2020), the analysis of the dimensions of servant leadership and the differences between public and private universities in this regard (Melinda et al., 2019), servant leadership and university performance (Melinda et al., 2018; Quddus et al., 2020), the analysis of the character of servant leadership in public and private universities in the city of Palu (Adda and Buntuang, 2018) and the characteristics of servant leadership and their implications for higher education (Jondar, 2021). Meanwhile, servant leadership studies in Christian higher education are dominated by non-research (conceptual), literature reviews, and church ministry (Adda and Buntuang, 2018; Hancock, 2019; Prajogo, 2019; Apriano, 2020; Siburian, 2020; Silalahi, 2020; Hartono et al., 2021; Jondar, 2021), development, verification and validation of instruments (Ingram, 2003), quantitative (pre- and post-tests) (Hylen and Willian, 2020), quantitative (descriptive) (Burch et al., 2015), and qualitative studies (Ricky, 2017; Jagela, 2019). Thus, no studies have tested and measured complex variables simultaneously in one model that includes servant leadership, trust (job-related outcomes + mediator), leadermember exchange (LMX) (behavioral outcome), and job satisfaction (well-being + outcome) in the context of Christian higher education in Indonesia. Servant leadership is still little done in job-related outcomes such as trust variables (Mcquade et al., 2020). Therefore, the current research uses trust as a mediator variable, which is found as a knowledge gap.

Yukl (2017) emphasized the need to conduct more servant leadership research in universities and other organizations in the higher education sector because of its potential positive role in individual and organizational outcomes. In relation to job satisfaction, recently, Mgaiwa (2021) points out the lack of research on academic job satisfaction in a non-European context, and non-Western is still dominated in Palestine (Palestinian Ministry Higher Education, [PMHESR], 2019; Dahleez and Aboramadan, 2022). Therefore, current research explores the influence of two less-studied variables in Christian higher education in this context, particularly Indonesia.

The current research contributes to the literature on predictors of job satisfaction, since it has been argued that this area of research requires more exploration (Jiang et al., 2016). Finally, two mediators, trust and LMX, were discussed in the influence of servant leadership on job satisfaction. Servant leadership influences trust in the leader and the effect of servant leadership through trust in the leader as a mediation variable (Keradjaan et al., 2020). Differently, Du Plessis et al. (2015) found trust as a predicator of servant leadership, not as a mediation variable. Here is found evidence gap, where the placement of trust as a mediation variable is not consistent

because trust also has a role as a predictor servant leadership. In addition, LMX has an important role in mediating the relation between servant leadership and work satisfaction (Wu et al., 2013). In business, LMX is a mediator variable in the relation between servant leadership and job satisfaction (Akdol and Sebnem Arikboga, 2017). This research was conducted in the context of Christian higher education.

This research was conducted at the Indonesian Christian Religious College (PTKKI) east Java Region, Indonesia, especially Christian higher education. The place of this study was chosen because the results of the study showed the low quality of management because of the low leadership style traditional leadership (Lumintang, 2019). The leadership style in Christian higher education is more exclusive (Hope, 2010). This style is more appropriate for the leadership of church institutions, not educational institutions. About leadership issues, furthermore, Lumintang (2019) asserts that the problems of leaders and leadership in Christian higher education environments include (1). The pattern of appointment of undemocratic leaders by the Organizing Board of Private Universities (BPPTS) and the appointed leaders are people who become seniors in the institution, without considering leadership and management competencies; (2). The competence of leaders is evangelists and teachers; (3). The managerial competence of the leader does not become a qualification of the leader and is not a provision and demand of BPPTS because the main requirement is regarding the main call as a preacher and teacher of the people; (4). The performance of leadership is seen in the attention and energy of leaders who are distracted from the service, not its primary task, such as seeking the operational and development costs of the institution; (5). There is no open and planned effort on the part of BPPTS to prepare leaders, so there is no planned and sustainable regeneration.

To solve this problem, Lumintang (2019) offers a contemporary model of leadership and leadership (servant leadership) because this model is relevant for quality management, which will improve the quality of Christian universities until they reach national and even international standards. Servant leadership is relevant to apply at the Christian college level because the term "servant" is already very familiar to Christian college lecturers. Servant leadership is an important component of academic excellence, channeling any Christian higher education community member's academic, physical, social, spiritual, and talents to a greater need for the world (Espy, 2006).

Based on the knowledge gap, evidence gap, and empirical phenomena, this study aims to examine the effect of servant leadership on job satisfaction through trust and LMX. This study made a significant key contribution to empirical literature and supporting theories through the role of trust and LMX as mediating variables between servant leadership and job satisfaction. In addition, this study provides universities with a practical means to identify early potential service leaders in

leading the college because it significantly impacts lecturers' trustworthiness, LMX and job satisfaction.

Theoretical foundation

Social exchange theory

This theory defines how social interaction is determined by the benefits of the exchange of services. In addition, SET proposes that the orientation of individual exchanges is an influential factor in social exchange relations (Jahan and Kim, 2021). The influence between servant leadership and trust on job satisfaction can be explained through the social exchange theory. The main idea in the theory of social exchange is that the parties go inside and maintain exchange relations with others in the hope that doing so will be beneficial (Blau, 1968). According to Stafford (2014), a social exchange involves relationships with others, involves beliefs that conflict with legal obligations, is more flexible, and rarely involves bargaining explicitly. The theory of social exchange also shows the desire to reduce losses and maximize profits by individuals in the interactional relationship between them (Thibaut and Kelley, 1959). In servant leadership, the process of interaction and exchange (explicit or implicit) between the servant leader and subordinates is central to the relationship (Liden et al., 2008). In serving the followers, the leader is involved in a high level of interaction with them which will affect the level of trust and relationships (Schwarz et al., 2016). Using the theory of social exchange (Blau, 1964), servant leadership in subordinate attitudes can be explained in which trust in the leader is a mediator (Mayer et al., 1995; Rousseau et al., 1998).

The theory of leader-member exchange

The main premise of this theory is that leadership behavior contributes to the development and maintenance of strong interpersonal relationships between leaders and followers and plays an important role in helping employees reach their full potential (Manz and Sims, 1987; Liden and Maslyn, 1998). Servant leadership emphasizes employee development and growth in the context of moral and social care (Rodríguez-Carvajal et al., 2014). Servant leaders will empower followers; they support and encourage and facilitate the growth and development of their followers (van Dierendonck, 2011; Liden et al., 2015). The serving leader will help subordinates to grow and succeed by showing a sincere interest in their career development and allowing subordinates to improve their skills (Chiniara and Bentein, 2016). van Dierendonck (2011), in his literature review of servant leadership, found that several studies show that highquality LMX relationships, trust, satisfaction and fairness positively affect personal growth, work attitudes, and follower performance.

Literature review and hypotheses development

Servant leadership and job satisfaction

Researchers in several fields have found that the higher an employee's perception of servant leadership in an organization, the higher their job satisfaction (Mccann et al., 2014). Ndoria (2004) uses LMX theory to explain the influence of servant leadership on job satisfaction—success is found to arise from the formation of high-quality relationships and interactions between leaders and followers. Servant leaders committed to paying attention to followers' well-being will lead to job satisfaction and higher job motivation (Thompson, 2002).

Thompson (2002) reports a significant positive relationship between servant leadership and job satisfaction in educational settings. Empirical research in public and private universities revealed a significant positive impact of leadership style on job satisfaction from faculty where the servant leadership style was found to have the highest positive significant impact on faculty job satisfaction compared to the leadership style of coaches, human relations specialists, controlling autocrats, transformational visionaries, and transactional exchanges (Alonderiene and Majauskaite, 2016). Servant leadership is often compared to charismatic and transformational leadership; after all, serving others by favoring positive behaviors at the macro and micro levels can result in high levels of job satisfaction (Boone and Makhani, 2012). The biggest difference in servant leadership can be the capacity to build faculty confidence, emphasize the importance of integrity, and focus on long-term relationships with the organization. At a time when servant leadership maintains self-efficacy, individual motivation, and communal engagement, faculty will intrinsically become committed to the organization's mission, realize greater job satisfaction and a willingness to maintain a high level of performance, and will be more likely to model the behavior and interests of leaders and organizational processes (Liden et al., 2008).

H1: There is a significant positive effect of servant leadership on job satisfaction

Servant leadership and trust

Greenleaf (1977) states that trust is a building block for servant leaders, which fosters an environment of trust. Servant leadership is a significant predictor of trust with covenant relationships, responsible morality and changing the influence of servant leadership behavior as a key that significantly contributes to followers' trust in their leaders. Followers who feel high servant leadership behavior in their leaders have a much higher level of trust compared to those who feel low servant leadership behavior in their leaders (Senjaya and Pekerti, 2010).

Philosophically, Lowe (1998) asserts that servant leadership as the basis of trusting relationships in organizations and a

culture of high trust among employees provides organizations with the ability to respond to an ever-changing business environment without having to struggle with constant internal resistance to change. On a more individual level, Lowe (1998) proposes that there are two ways servant leaders build relationships with new individuals, namely (1) treating subordinates with suspicion until they prove themselves trustworthy; and (2) having the assumption that subordinates can be trusted until they prove that they are trustworthy. The visible manifestation of the trust of the servant leaders toward others is the same in a second way, based on the leader's willingness to delegate responsibilities and share authority with their subordinates (Wilkes, 1998). Saleem et al. (2020) found that servant leadership can predict affective trust.

H2: There is a significant positive effect of servant leadership on trust

Servant leadership and leader-member exchange

Servant leadership effectively generates high-quality exchanges between a leader and a follower in the workplace. According to Ng et al. (2008), the theory of social exchange is a fundamental relationship-based approach to understanding the relational dynamics between servant leaders and followers. Previous research has adopted this perception of social exchange (Blau, 1964) to explain the influence of servant leadership on outcomes related to leaders, including LMX and leader effectiveness. One of the characteristics of servant leadership in organizations is that leaders seem friendly and approachable and initiate a high LMX when interacting with employees (Ling et al., 2016). Other studies have found that followers' perceptions of leaders who have attributes of servantoriented behavior give rise to favorable perceptions of leaders, which is an important antecedent of followers' perceptions of the effectiveness of servant leadership (Han and Kim,

Servant leadership can improve LMX for three reasons: First, by focusing on the development of followers and providing opportunities to learn new skills (Smith et al., 2004), servant leaders facilitate the development of strong interpersonal relationships with their followers (Ehrhart, 2004; Liden et al., 2008). Second, by soliciting ideas or ideas from followers and encouraging them to engage in decision-making (Hunter et al., 2013), servant leaders can build high-quality LMX relationships with followers that go beyond certain economic exchanges. Third, servant leaders are seen as principled decision-makers who care about others by emphasizing the importance of contributing to society and following up on agreements (Walumbwa et al., 2010), servant leaders are seen as principled decision makers, who care about others. This will make followers understand that those leaders act in their best

interests, resulting in increased LMX from a higher level of loyalty and emotional connectedness.

H3: There is a significant positive effect of servant leadership on LMX

Trust and job satisfaction

Trust is important in fostering relationships between colleagues (McAllister, 1995), and it is necessary to build a strong support network, which helps in managing work demands positively. Trust not only increases support between colleagues, but the sharing of prominent work information is also enhanced, which can help a person become more productive and successful at work (Robertson et al., 2013). In addition, trust in colleagues can lead to positive results, allowing greater connection to work, being more satisfied, and seeing the organization in a more positive context (Lambert et al., 2020).

According to Rhee (2010), trust in others at work is an indicator of human relationships among members of the workplace. Cook and Wall (1980) concluded that trust between individuals and groups in organizations is a very important variable in an organization's long-term stability and its members' well-being. Interpersonal trust helps create a more positive attitude in the workplace, including job satisfaction and commitment in the workplace (Dirks and Ferrin, 2002; Mooradian et al., 2006). Trust produces a direct (primary) influence on various outcomes. The leader-subordinate relationship also found that trust has a direct effect on job satisfaction, both colleagues' trust, organization, and management (Brashear et al., 2003; Maryance, 2020; Amini and Kemal, 2021). Mooradian et al. (2006) report that trust in co-workers and superiors is a strong driver of job satisfaction.

H4: There is a significant positive effect of trust on job satisfaction

Leader-member exchange and job satisfaction

Epitropaki and Martin (2005) found that LMX is an important factor influencing job satisfaction. LMX shows that leaders who have different relationships with various subordinates can strongly influence subordinates' performance and satisfaction (Greenberg, 2011). Meanwhile, subordinates with high-quality LMX work positively influence job satisfaction (Parker and Ohly, 2008).

Leader-member exchange literature suggests that a high-quality LMX can affect job satisfaction (Sparrowe, 1994). According to Stringer's (2006) findings, high-quality LMX is not only positive for follower job satisfaction but organizational outcomes as well. Many side effects may arise for leader-member relationships characterized by low quality. Low-quality LMX is relatively associated with low levels of job

satisfaction (Birgit Schyns, 2008; Cogliser et al., 2009; Le Blanc and González-Romá, 2012).

H5: There is a significant positive effect of LMX on job satisfaction

Trust mediates servant leadership and job satisfaction

Using the theory of social exchange (Blau, 1964), the process of servant leadership in subordinate attitudes can be explained in which trust in the leader acts as a mediator (Mayer et al., 1995; McAllister and Bigley, 2002). The social exchange perspective explains how servant leadership influences subordinate relationships to build trust with their leaders (Greenleaf, 1977). Servant leadership focuses on self-interest for the betterment of their subordinates. In return, subordinates retaliated by trusting their leader. A servant leader encourages subordinates to plan future opportunities, generously sharing and building trust with subordinates. When subordinates feel they are receiving benefits from the servant leader, they are motivated to trust their leader (Whitener et al., 1998).

The transformational model of servant leadership finds that vision, influence, credibility, trustworthiness, and service are consequences of servant leadership (Farling et al., 1999). Subordinates are motivated to increase their job satisfaction when relationships are based on trust in their leader (Spreitzer and Mishra, 2016). Joseph and Winston (2005) found that servant leadership correlates with trust in the leader. Trust in the leader is defined as the intention to accept vulnerabilities based on the expectation of the leader's positive intentions or behaviors (Dirks and Ferrin, 2002). Senjaya and Pekerti (2010), using a sample of 555 employees, found that servant leadership is associated with trust in their leaders. A high level of servant leadership behavior has a greater impact on trust in their leaders. Servant leadership is associated with high-quality social exchange relationships (Dirks and Ferrin, 2002; Joseph and Winston, 2005; Senjaya and Pekerti, 2010), which in turn affects the trust of subordinates in the leader and increases job satisfaction.

H6: Trust mediates the effect of servant leadership on job satisfaction

Leader-member exchange mediates servant leadership and job satisfaction

Statistical studies have shown that being a group member and having a high-quality LMX relationship is a useful and desirable position in an organization. The leader delegates many decisions to members within the group, and the group receiving many rewards will increase the job satisfaction of the group (Epitropaki and Martin, 2005).

Leader-member exchange can be used as a framework to explain the relationship between the servant leader and

the follower. Through mutual trust and respect, servant leadership builds high LMX qualities between servant leaders and followers. Servant leadership convinces followers and builds consensus within the group through reasoning, factual evidence, interesting inspiration, and consultation. In addition, the servant leader strengthens and develops the follower with the correct mixture of hints and autonomy. All these efforts are beneficial to establishing the quality of the LMX between the servant leader and the follower (van Dierendonck, 2011). Akdol and Sebnem Arikboga (2017) found an influence of LMX partial mediators on the relationship between servant leadership and job satisfaction.

H7: Leader member exchange mediates the effect of servant leadership on job satisfaction

Materials and methods

Research design

This type of study is hypothesis testing to explain the understanding of the effects between variables. Data was collected from lecturers in Christian higher education in the province of East Java, Indonesia, and one response was taken from each lecturer individually. The data is collected once and represents a portrait from a single point in time. Therefore, this study is represented as a cross-sectional study in which respondents were surveyed from June–August 2022.

Samples and procedures

Data were collected for over 1 month, a pre-test and pilot study from June 8, 2022-July 6, 2022, and a real study from July 8, 2022-August 10, 2022. The initial contact was made via WhatsApp with the general secretary of Badan Musyawarah Perguruan Tinggi Keagamaan Kristen Indonesia (BMPTKKI) and the head of Persatuan Perguruan Tinggi Teologi (PPTT) in East Java province, Indonesia who explained the purpose of the research and requested a research permit. After approval, we held meetings via Zoom meeting twice to determine the target of Christian higher education distribution based on real data and data from the Higher Education Database (PDDikti), Directorate General of Higher Education, Ministry of Education and Culture, Republic of Indonesia. It found 26 of the 33 Christian higher education (Private universities) participated in the study. After that, the general secretary of BMPTKKI and the head of the East Java PPTT communicated with the leaders and lecturers of Christian higher education in East Java to distribute questionnaires. Online questionnaires are distributed to lecturers through google forms.

The number of lecturers from 26 Christian higher education who were the population in this study was 450 respondents.

After that, the criteria for the number of research samples based on the SEM model analysis (Albright and Park, 2009) were determined by 5 to 10 times the number of manifest variables/indicators of the overall latent variables. This study used four latent variables with 20 manifest variables/indicators; thus, the minimum number of samples used in this study according to the criteria for the number of samples for SEM analysis was $20 \times 8 = 160$ samples. The sampling technique used in this study was cluster sampling (multistage sampling), which was classified into two stages. The first stage determines a sample of Christian higher education, and the second stage determines a random sample of eligible Christian colleges. Furthermore, the number of sample members in each Christian higher education was calculated using a proportional allocation formula (Yamin and Kurniawan, 2011; Riduwan, 2012), as reported in Table 1.

$$ni = \frac{Ni}{N}n$$

Information:

ni = Number of sample members by area;

n = Total sample members;

Ni = Number of population members by area;

N =Total population members.

In this study, 160 questionnaires were successfully collected when the questionnaires were distributed. So, the 160 respondents who participated answered all the questions in full. Of the 160 respondents, it was found to be dominant lecturers (65.56%), vice-rectors/chairmen (12.78%), heads of study programs (7.78%), heads of quality assurance agencies (4.44%), deans (2.22%), bureau heads (1.67%), and others (0.56%). Furthermore, the number of sample members in each area is calculated using the proportional allocation formula (Yamin and Kurniawan, 2011; Riduwan, 2012), and found the highest number of samples of 27 and the lowest two samples for each Christian higher education.

Instruments

The study's theoretical framework consists of four constructs, each of which is measured through various items. The 5-point Likert scale is used to measure items ranging from strongly disagreeing (1) to strongly agreeing (5). To improve the accuracy of the results, pre-testing was carried out to ensure the validity of the content, readability, and in short, the instrument using expert evaluation consisting of two research methodology (quantitative) experts, two education management experts and one Christian leadership expert. The degree of agreement of the five experts in this study was measured using Aiken's V formula to calculate the content-validity coefficient, with the criteria of Aiken's V coefficient \geq 0.30 can be declared a valid question item (Azwar, 2012). Based on Aiken's coefficient, the results of the expert evaluation of 4 (>0.30) items were

TABLE 1 Sample by area of Christian higher education.

Institution	Proportional allocation formula	Number of samples
Christian Higher Education (1)	$\frac{16}{450} \times 160$	6
Christian Higher Education (2)	$\frac{8}{450} \times 160$	3
Christian Higher Education (3)	$\frac{20}{450} \times 160$	8
Christian Higher Education (4)	$\frac{29}{450} \times 160$	10
Christian Higher Education (5)	$\frac{18}{450} \times 160$	7
Christian Higher Education (6)	$\frac{5}{450} \times 160$	2
Christian Higher Education (7)	$\frac{6}{450} \times 160$	2
Christian Higher Education (8)	$\frac{15}{450} \times 160$	5
Christian Higher Education (9)	$\frac{21}{450} \times 160$	8
Christian Higher Education (10)	$\frac{16}{450} \times 160$	6
Christian Higher Education (11)	$\frac{10}{450} \times 160$	3
Christian Higher Education (12)	$\frac{14}{450} \times 160$	5
Christian Higher Education (13)	$\frac{12}{450} \times 160$	4
Christian Higher Education (14)	$\frac{22}{450} \times 160$	8
Christian Higher Education (15)	$\frac{12}{450} \times 160$	4
Christian Higher Education (16)	$\frac{30}{450} \times 160$	11
Christian Higher Education (17)	$\frac{6}{450} \times 160$	2
Christian Higher Education (18)	$\frac{13}{450} \times 160$	5
Christian Higher Education (19)	$\frac{14}{450} \times 160$	5
Christian Higher Education (20)	$\frac{15}{450} \times 160$	5
Christian Higher Education (21)	$\frac{49}{450} \times 160$	18
Christian Higher Education (22)	$\frac{18}{450} \times 160$	7
Christian Higher Education (23)	$\frac{6}{450} \times 160$	2
Christian Higher Education (24)	$\frac{53}{450} \times 160$	19
Christian Higher Education (25)	$\frac{8}{450} \times 160$	3
Christian Higher Education (26)	$\frac{5}{450} \times 160$	2
Total	150	160

Source (s): Pangkalan Data Pendidikan Tinggi (PDDikti), Sekretariat Direktorat Jenderal Pendidikan Tinggi Kementerian Pendidikan dan Kebudayaan, Indonesia, 2022.

used, and 54 (<0.30) items were removed from a total of 103 items because they were not representative, unimportant, and unclear. Furthermore, the pilot test was carried out using the confirmatory factor Analysis (CFA) test. The pilot test sample was determined based on guidance from Hair et al. (2014) with 60 lecturers taken by random sampling in the population area but not included in the real study sample.

The CFA results show that the factor loading >0.70 for sample size 60 (SL = 0.835–0.935, T = 0.737–0.880, JS = 0.714–0.887, and LMX = 0.816–0.903); Communality > 0.50 (SL = 0.698–0.875, T = 0.529–0.774, JS = 0.541–0.787, and LMX = 0.666–0.834); Keiser-Meyer-Olkin (KMO) > 0.50 (SL = 11.733, T = 0.860, JS = 0.895, and LMX = 0.885); Eigenvalue > 1 (SL = 11.733, T = 4.221, JS = 7.264, and LMX = 5.930); % Variance explained > 50% (SL = 78.220, T = 60.298, JS = 66.034, and LMX = 74.128); and Cronbach's Alpha > 0.70 (SL = 0.980, T = 0.885, JS = 0.944, and LMX = 0.946). In the end, the CFA test results showed

that SL, T, JS, and LMX had sufficient construct validity. All subscales include enough items to provide a credible estimate of all variables. Reliability analysis confirms that instruments can be used in Indonesian contexts, especially in Christian universities. The CFA test results state that the data is reasonably conformed to the model.

All items in the designed survey were measured according to the 5-point Likert scale that ranged from (1) strongly disagree to strongly agree (5). First, 15 items used to measure servant leadership were developed by Latif and Marimon (2019) and adapted to measure SL, which consists of eight dimensions, including behaving ethically (2 items), development (2 items), emotional healing (1 item), empowerment (2 items), pioneering (2 items), relationship building (1 item), and wisdom (1 item). The other two dimensions of SL adapted from Sendjaya et al. (2017) include transcendental spirituality (2 items) and Ukeni et al. (2019), namely motivation to serve (2 items). An example of the items for servant leadership is "Rector/chairman rejects manipulation." Trust is measured using instruments developed by McAllister (1995), which include cognitive (4 items) and affective (3 items). An example of the selected items includes "I and rector/Chairman can freely share ideas together." Job satisfaction is adapted from Weiss et al. (1967), which includes intrinsic dimensions (5 items), extrinsic (5 items) and general (1 item). An example of the selected items includes "I am very satisfied with my current salary." Finally, LMX is measured using four dimensions developed by Liden and Maslyn (1998), including affective (2 items), loyalty (2 items), contributions (2 items) and professional respect (2 items). An example of the selected items includes "Rector/Chairman will defend me before others if I confess honestly to the mistakes I have made."

Data analysis

This study used partial least squares structural equation modeling (PLS-SEM) for data analysis, as recommended by previous researchers (Hair et al., 2020; Zeng et al., 2021). This technique is used for multivariate analysis because it can estimate theoretically established models of cause-effect relationships (Shah et al., 2022). This study used SmartPLS version 4 to test the measurement and structural models (Hair et al., 2017; Sarstedt and Cheah, 2019). In particular, the measurement model was assessed to ensure internal consistency (Cronbach's alpha and composite reliability), convergent validity (outer loading and average variance extract/AVE), and discriminant validity (Heterotrait-Monotrait ratio of correction) met the recommended threshold quality. Then, structural models are analyzed for hypothesis testing the relationship between latent variables. Structural models show the relationship between constructs assessed using bootstrapping with 5000 resamples to produce the value of the path coefficient and its significance (p < 0.05, one-tailed).

This research adopted the concept of mediation provided by Baron and Kenny (1986). When analyzing the mediation relationship, the guidelines from Baron and Kenny (1986) were the most used method by previous researchers. As for decision-making related to the type of mediation (Memon et al., 2018), this study adopts an understanding of the types of mediation and non-mediation from Zhao et al. (2010). Regarding the application of mediation analysts, this study uses bootstrapping because it has been recognized as one of the more rigorous and robust methods for testing the effects of mediation (Hayes, 2009; Zhao et al., 2010).

Results

Demographic profile

The respondents to this study were lecturers at 26 Christian universities in the East Java province of Indonesia (Private universities). Table 2 showed that the dominant respondents were male (71.25%) and female (only 28.75%). The majority of respondents were over 46 years old (54.38%), and the age groups were 41–45 (20.63%) and 36–40 (20%). The academic qualifications of respondents were dominated by Masters (60.63%) and doctorates (36.25%). For academic grades, participants were dominated by lecturers (38.13%) and then tutors (35.63%) and senior lecturers (24.38%). The respondents with the most teaching experience were more than 5 years (69.38%) and the years of experience at the college were more than 5 years (75.00%).

Assessment of measurement model

Descriptive statistics, convergent validity, internal consistency and discriminant validity

After testing the CFA, descriptive statistics of variables (*mean* and standard deviation) and correlations were analyzed. As shown in **Table 3**, SL has a positive correlation with T (r = 0.682, p < 0.01), JS (r = 0.818, p < 0.01), and LMX (r = 0.683, p < 0.01). It also shows that JS has a positive correlation with T (r = 0.814, p < 0.01). Furthermore, the analysis also showed that LMX and T are positively related (r = 0.435, p < 0.01) and JS (r = 0.701, p < 0.01). In total, these findings provide preliminary support for the main hypothesis. The statistical values of *mean* and standard deviation for variables are also found as follows: SL (59.21 \pm 10.976), T (27.32 \pm 5.632), JS (41.14 \pm 8.261), and LMX (27.26 \pm 6.975).

Before testing the hypothesis, the measurement of validity and reliability is evaluated based on the measurement model. The measurement model assessment in Table 4 and Figure 1 shows that all outer loadings exceed the threshold value of 0.6 after removing 1 item (SL7) because it has a singular

TABLE 2 Demographic profile of participants (n = 160).

Variables	Frequency	Percentage
Gender		
Male	130	71.25%
Female	50	28.75%
Age (years)		
26-30	2	1.25%
31–35	7	3.75%
36-40	36	20.00%
41-45	37	20.63%
More than 46 years	98	54.38%
Qualification		
Bachelor	7	3.13%
Master	107	60.63%
Doctor	66	36.25%
Academic grade		
Tutor	63	35.63%
Lecturer	72	38.13%
Senior lecturer	42	24.38%
Associate professor	2	1.25%
Professor	1	0.63%
Teaching experience		
Less than 2 years	17	10.00%
Between 2–5 years	36	20.63%
More than 5 years	127	69.38%
Years of experience at the college		
Less than 2 years	15	8.75%
Between 2–5 years	29	16.25%
More than 5 years	136	75.00%

matrix problem (occurrence of extreme collinearity levels) and 1 item (JS10 = 0.527) because this item has an outer loadings value smaller than 0.6, as suggested by Dash and Paul (2021), Loading factors listed at 0.6 or higher are considered significant; therefore loadings contribute significantly to each construct. In addition, the average variance extracted (AVE) is higher than the cut-off value of 0.5 (Hair et al., 2011). Therefore, the AVE value generated through the measurement model is acceptable. Based on these results, it can be said that the scale does not indicate any problems with convergent validity. All composite reliability values (Hair et al., 2011) and Cronbach's alpha (Hair

et al., 2010) are above 0.7, thus establishing internal consistency reliability. The validity of the discriminant was assessed using the Heterotrait-Monotrait Ratio of Correlation (HTMT). This approach can overcome the limitations in the previous steps and should be less than 0.90 (Henseler et al., 2015). **Table 5** shows that all HTMT values are less than the threshold value of 0.90 after removing T7 because the HTMT between T and JS = 0.901. Thus, when deleting one item (T7), there is no problem with discriminant validity for this measurement model. In conclusion, all the identified constructs and indicators are suitable for evaluating the model and testing hypotheses.

Assessment of structural model

Before the hypothesis test, Common Methods Variance (CMV) could be applied in this study due to a single informant data source (Podsakoff et al., 2003), which could affect the relationships among variables measured using the same method (MacKenzie and Podsakoff, 2012). According to Kline (2011), the presence of CMV in a model is indicated by the inability of the model to achieve discriminant validity. Poor discriminant validity indicates that all manifest variables measure only one domain. This study assessed CMV using the technique suggested by Kock (2015). As discussed by Kock (2015), a Variance Inflation Factor (VIF) value greater than 3.3 projects a sign of pathological collinearity, and as a symptom that the model may be affected by CMV. Assessment using SmartPLS 4 showed that the study was free of CMV problems because all VIF values were less than 3.3 (Table 6).

After achieving the assumption of reliability and validity through a measurement model using PLS-SEM, the structural model has been verified. The hypothesis is accepted if the t-value is greater than or equal to 1.645, then the relationship is significant at alpha <0.05. The hypothesis testing results presented in **Table 7** show that the effect of SL on JS (β = 0.286, t-value = 4.907, p < 0.05), T (β = 0.655, t-value = 14.647, p < 0.05), and LMX (β = 0.728, t-value = 22.939, p < 0.05) were positive and significant, thus H1, H2 and H3 were accepted. Furthermore, T has a positive and significant effect on JS (β = 0.500, t-value = 9.160, p < 0.05) and LMX has a significant positive effect on JS (β = 0.280, t-value = 5.589, p < 0.05), thus H4 and H5 are accepted.

TABLE 3 Mean, standard deviation, and correlation.

Construct	Mean	SD	1	2	3	4
SL	59.21	10.976	1			
T	27.32	5.632	0.682**	1		
JS	41.14	8.261	0.818**	0.814**	1	
LMX	27.26	6.975	0.683**	0.435**	0.701**	1

^{**}p < 0.01 (1-tailed).

SL, servant leadership; T, trust; LMX, leader-member exchange; JS, job satisfaction.

TABLE 4 Convergent validity and internal consistency.

Construct	Item code	Items	Outer loadings	Cronbach's alpha	CR	AVE
SL	SL1	Rector/Chairman never abuses power for personal gain	0.680	0.945	0.952	0.585
	SL2	Rector/Chairman rejects manipulation	0.780			
	SL3	Rector/Chairman improves the academic qualifications of lecturers both through formal education and non-formal education in a planned manner	0.816			
	SL4	Rector/Chairman develops the spirit of leadership that serves (servant leadership) of lecturers	0.768			
	SL5	Rector/Chairman cares about the personal welfare of the lecturers	0.820			
	SL6	Rector/Chairman receives input from fellow lecturers in deciding a policy	0.735			
	SL8	Rector/Chairman encourages lecturers to convey new ideas	0.738			
	SL9	Rector/Chairman is adept at adopting innovative management policies.	0.732			
	SL10	Rector/Chairman collaborates with the lecturers.	0.680			
	SL11	Rector/Chairman can anticipate the consequences of a decision	0.778			
	SL12	Rector/Chairman leads the lecturers because a call from God drives them	0.817			
	SL13	Rector/Chairman helps lecturers to be able to find clarity on their goals and life direction	0.771			
	SL14	Rector/Chairman promotes the career of my co-workers (lecturers)	0.821			
	SL15	Rector/Chairman trains my colleagues (lecturers) in carrying out their work	0.750			
T	T1	Rector/Chairman performs their duties and responsibilities professionally.	0.889	0.898	0.923	0.669
	T2	Given Rector/Chairman's track record, I have no reason to doubt his or her competence	0.837			
	Т3	My other co-workers, who interacted with Rector/Chairman considered him or her trustworthy	0.810			
	T4	I and Rector/Chairman can freely share ideas together	0.804			
	T5	I and Rector/Chairman will feel lost if one of us is moved and we can no longer cooperate	0.902			
	Т6	Most people, even those who are not close friends of the Rector/Chairman, respect him or her as a co-worker.	0.637			
	LMX1	I really like Rector/Chairman for being present as a person	0.720			
LMX	LMX2	I am impressed by Rector/Chairman's knowledge of his or her work	0.778	0.911	0.923	0.600
	LMX3	I admire the Rector/Chairman's attitude in the workplace	0.755			
	LMX4	Rector/Chairman will come to my defense if I am "attacked" by others	0.750			
	LMX5	Rector/Chairman defended my work performance before the college leadership, even without complete knowledge of the intended problem	0.737			
	LMX6	Rector/Chairman will defend me before others if I confess honestly to the mistakes I have made.	0.839			
	LMX7	I work beyond what has been specified in my job description	0.848			
	LMX8	I actively conduct research at an independent cost to increase college publications.	0.759			
JS	JS1	I have the opportunity to do different things over time	0.824	0.926	0.938	0.604
	JS2	I have the opportunity to be someone meaningful in the work environment	0.856			
	JS3	I had the opportunity to tell others what to do	0.862			
	JS4	I had the opportunity to do something that required the ability I had	0.830			
	JS5	I have a feeling of being very satisfied in completing a certain work	0.659			
	JS6	I am very satisfied with how the Rector/Chairman helped the lecturers.	0.759			
	JS7	I am very satisfied with the Rector/Chairman's policy that has been implemented	0.764			
	JS8	I am very satisfied with my current salary.	0.711			
	JS9	I had the opportunity to develop my work career	0.683			
	JS11	I am very satisfied with the current working conditions	0.796			

N = 160. CR, composite reliability; AVE, average variance extracted; SL, servant leadership; T, trust; LMX, leader-member exchange; JS, job satisfaction.

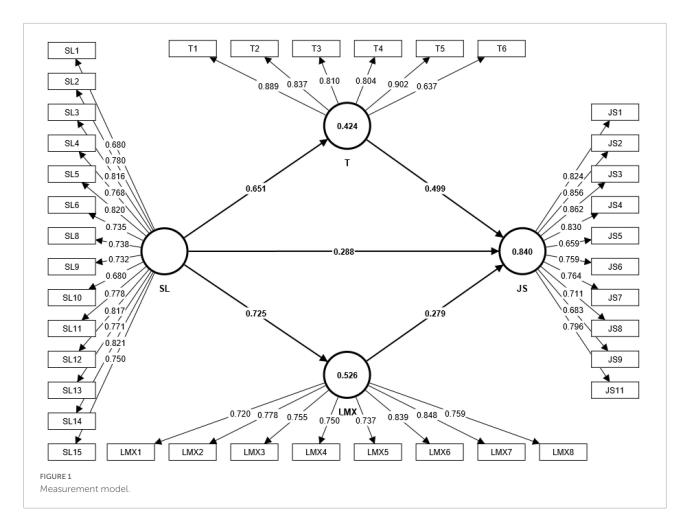


TABLE 5 Discriminant validity: heterotrait-monotrait ratio.

	JS	LMX	SL	T
JS				
LMX	0.702			
SL	0.851	0.700		
T	0.885	0.438	0.674	

TABLE 6 Collinearity statistics: variance inflation factor.

	JS	LMX	T
LMX	2.111		
SL	2.895	1.000	1.000
T	1.738		

After reporting the direct effect results, the results of the indirect effect are reported. **Table 7** shows that the indirect effect, SL on JS *via* T (β = 0.327, *t*-value = 8.008, p < 0.05) and LMX (β = 0.204, *t*-value = 5.615, p < 0.05) are significant positive, consequently H6 and H7 are accepted.

After establishing the importance of the effects between the constructs, the study evaluated the model's predictive accuracy through R^2 . It can be seen as a combined effect of exogenous variables on endogenous variables. In other words, it represents the amount of variance in the endogenous construct described by all the associated exogenous variables. As the rule of thumb stated by Hair et al. (2017), the values of $R^2 = 0.75$, 0.50, and 0.25 reflect the substantial, moderate, and weak contributions of exogenous variables to endogenous variables, respectively. The R^2 value of JS is 0.840 (substantial). Therefore, 84.0% of variants in JS are determined by SL, T, and LMX. The R^2 value of T is 0.424 (weak) or 42.4% of the variant in T is determined by SL and the R^2 value of LMX is 0.526 (moderate) or 52.6% of the variant in LMX is determined by SL.

Then, the f^2 effect size is calculated to evaluate the R^2 value of all endogenous constructs, the change in the value of R^2 when a particular exogenous construct is removed from the model can be used to evaluate whether the omitted construct has a substantive impact on the endogenous construct (Table 8). Cohen (1988) provides guidelines for interpreting f^2 ; the values of 0.02, 0.15, and 0.35, represent small, medium, and large effects, respectively. SL has a medium effect against

TABLE 7 Summary of hypotheses testing.

Hypotheses Path	Path Std. Beta	eta Std. Error <i>t</i> -value	P-value Bias	Confidence interval bias corrected		Decisions			
						5.00%	95.00%	-	
Direct effect									
H1	SL- > JS	0.286	0.059	4.907	0.000	-0.002	0.195	0.388	Accepted
H2	SL- > T	0.655	0.044	14.647	0.000	0.003	0.561	0.713	Accepted
H3	SL- > LMX	0.728	0.032	22.939	0.000	0.003	0.665	0.770	Accepted
H4	T- > JS	0.500	0.054	9.160	0.000	0.001	0.408	0.587	Accepted
H5	LMX- > JS	0.280	0.050	5.589	0.000	0.000	0.191	0.358	Accepted
Indirect effect									
H6	SL- > T- > JS	0.327	0.041	8.008	0.000	0.002	0.258	0.39	Accepted
H7	SL- > LMX- > JS	0.204	0.036	5.615	0.000	0.001	0.139	0.258	Accepted

p < 0.05 (one-tailed test).

TABLE 8 Effect size (f^2) .

Endogenous variable			
JS	LMX	T	
0.232			
0.179	1.110	0.736	
0.896			
	JS 0.232 0.179	JS LMX 0.232 0.179 1.110	

JS ($f^2 = 0.179$), a large effect against LMX ($f^2 = 1.110$) and a large effect against T ($f^2 = 0.736$). In addition, the size of the effect f^2 of the relationship between T and JS indicates the size of the large effect ($f^2 = 0.896$). Finally, LMX has a medium effect against JS ($f^2 = 0.232$).

Discussion

In this study, the primary purpose was to identify the outcomes of SL and establish direct and indirect effects. First, the model confirms the direct influence of SL on T. These findings are in line with the results of previous studies (Keradjaan et al., 2020; Saleem et al., 2020; Hai and Van, 2021). The results of this study confirm that trust is the outcome of SL, not a predictor of SL. Second, the effect of SL on LMX was confirmed in this study (Henderson et al., 2009; Wu et al., 2013; Ling et al., 2016). Servant leadership can improve LMX for three reasons: (1) by focusing on the development of followers and providing opportunities to learn new skills (Smith et al., 2004), servant leaders facilitate the development of strong interpersonal relationships with their followers (Ehrhart, 2004; Liden et al., 2008). (2) By proposing ideas from followers and encouraging them to engage in decision-making (Hunter et al., 2013), servant leaders can build high-quality LMX relationships with followers that go beyond certain economic exchanges. (3) Servant leaders are seen as principled decision-makers who care about others by emphasizing their followers, the importance of contributing to society and following up on agreements (Walumbwa et al., 2010). This will make followers understand that those leaders act in their best interests, resulting in increased LMX from a higher level of loyalty and emotional connectedness. Thirdly, statistically, these findings suggest that SL has a significant positive effect on JS and is in line with previous literature (Thompson, 2002; Boone and Makhani, 2012). Empirical research in public and private universities revealed a significant positive impact of leadership style on job satisfaction from faculty, where the servant leadership style was found to have the highest positive significant impact on faculty job satisfaction compared to the leadership style of coaches, human relations specialists, controlling autocrats, transformational visionaries, and transactional exchanges (Alonderiene and Majauskaite, 2016). Fourth, the direct effect shows that LMX positively and significantly affects JS. Studies from Wang et al. (2005), Bhal (2006), Stringer (2006), Birgit Schyns (2008), Cogliser et al. (2009), Le Blanc and González-Romá (2012), Anand et al. (2018) confirmed this influence. Khan and Malik (2017) state that the relationship that the leader performs to his subordinates in the context of LMX will make subordinates do work outside of the contract that has been determined at the beginning, even high-quality LMX relationships will receive more support, discretionary work and trust from the leader, and satisfaction increases, as Miner (2005) asserts that LMX is the best predictor for job satisfaction. Fifth, these findings provide an endorsement that T has a significant positive effect on JS, in line with previous studies (Brashear et al., 2003; Mooradian et al., 2006; Wong et al., 2012; Miao et al., 2014; Newman et al., 2014; Maryance, 2020; Amini and Kemal, 2021). Perry and Mankin (2007) and Lambert et al. (2020) concluded that trust is positively related to job satisfaction, suggesting that when colleges, management and co-workers are given a higher level of trust, job satisfaction tends to be higher and vice versa.

This study could determine the mediation effect (indirect effect) based on the model evaluation results. First, the effect of SL on JS is mediated by T. These findings are consistent with previous research (Dirks and Ferrin, 2002; Joseph and Winston, 2005; Senjaya and Pekerti, 2010). Chan and Mak (2014) found that trust in leaders mediates the relationship between servant leadership and subordinate job satisfaction. The positive influence of servant leadership on subordinates' trust in leaders and job satisfaction is increased for subordinates. This study found the effect of complementary mediation T mediation on SL and JS because the direct and indirect effects were significant and positive. Second, these findings differ from previous studies by Akdol and Sebnem Arikboga (2017), which found LMX as a partial mediator against SL and JS. The current findings state that the type of LMX mediation on SL and JS is complementary mediation because the direct and indirect effects are significant and positive. Therefore, a servant leader who delegates many decisions to the lecturers within the group and receives many rewards will increase the job satisfaction of the group (Epitropaki and Martin, 2005).

Theoretical and practical implications

Theoretical implications

The study contributed to the theory of servant leadership in two ways. First, this is the first study in Christian higher education that examines servant leadership as a predictor of lecturer job satisfaction using quantitative methods with structural equation modeling analysis. In particular, the indirect influence of servant leadership on job satisfaction through trust and leader-member exchange provides empirical support for the theoretical belief that the rector/chairman involved in a high level of interaction with lecturers will affect trust, reduce losses, and maximize profits in interactional relationships between them. In addition, based on the theory of leader-member exchange, high-quality LMX relationships, trust, and satisfaction positively affect personal growth, work attitudes, and lecturer performance. Thus, this study confirms a proposition based on social exchange theory (Thibaut and Kelley, 1959; Blau, 1968; Mayer et al., 1995; Rousseau et al., 1998; Liden et al., 2008; Schwarz et al., 2016) and the theory of Leader-Member Exchange (Manz and Sims, 1987; Liden and Maslyn, 1998; van Dierendonck, 2011; Liden et al., 2015; Chiniara and Bentein, 2016). Second, the results of this study confirm the results of previous research that servant leadership can be applied in Indonesian culture (Pekerti and Sendjaya, 2010; Dami et al., 2022), which emphasize the character of sociability and maintaining a friendship with everyone and holding a high distance of power, collectivism, low uncertainty avoidance, and short-term orientation (Rajiani and Pypłacz, 2018). In other words, power distance, short-term orientation culture, and paternalistic are not found to be obstacles to the practice of servant leadership in Christian higher education in Indonesia.

Practical implications

The results of the current study highlight the beneficial potential in improving the servant leadership behavior of the rector/chairman in Christian higher education. Our findings suggest a desire to support the promotion of servant leaders so that the appointment of rector/chairman in Christian colleges is not based on seniority within the institution but considers the servant leadership competencies of the leaders. In addition, the Organizing Board of Private Universities (BPPTS) needs to prepare for leadership regeneration by preparing future service leaders through training that directly supports the improvement of servant leadership behavior. This is important because the leadership behavior of servants becomes an essential leadership style for lecturer job satisfaction and the achievement of college goals.

Conclusion

The current study examines the role of mediation from trusts and leader-member exchanges in the effect of SL on JS in Indonesian Christian higher education. These findings reveal that SL is directly an important factor for JS lecturers at Indonesian Christian universities. SL also influences JS through T and LMX; the type of mediation is complementary mediation. Thus, JS predictors are SL, JS and LMX. In addition, T and LMX mediate the influence of SL on JS. Based on these findings, Christian higher education's servant leader (rector/chairman) needs to improve LMX and T to improve the JS of Christian higher education lecturers in Indonesia.

Limitations and future research

Similar to previous studies, this study has some limitations that need to be considered in future research. First, only one leadership style was tested in this study. Therefore, future research needs to consider using other leadership styles (transformational, transactional, entrepreneurial, charismatic and e-leadership) so that there is a comparison. Second, demographic data in this study was not used in hypothesis analysis. Future research could use some demographic data as moderator variables. Third, data collection is only taken from the individual level. We propose that the data be taken from both the individual and organizational levels.

Fourth, Hannay (2008) stated that Indonesia has a cultural fusion that can facilitate and not facilitate servant leadership. Collectivism, femininity, and low uncertainty avoidance are cultural characteristics that are in line with

servant leadership, while high power distance and short-term orientation culture in Indonesia are unfavorable to servant leadership. Therefore, future studies should consider the role of organizational culture by using contingency theory. Fifth, the data were analyzed using the partial least squares technique (PLS-SEM) to test hypotheses and draw conclusions. We suggest that longitudinal examinations should be directed in the future to gain a superior understanding of the possible influence of the servant leadership style on OCB Individuals and organizations. Fifth, this research only uses one leadership style, it is hoped that future research will use charismatic leadership, transformational leadership, transactional leadership, entrepreneurial leadership and e-leadership styles.

Data availability statement

The original contributions presented in this study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

This study provides universities with a practical means to identify early potential service leaders in leading the college because it significantly impacts trust, LMX and job satisfaction of lecturers.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work, and approved it for publication.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Leadership in PhD (LeaP): A longitudinal leadership skill building program for underrepresented biomedical research trainees

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Increasing diversity in the biomedical research workforce is a critical national issue. Particularly concerning is the lack of representation at more advanced career stages/in leadership positions. While there are numerous institutional initiatives promoting professional research skills (i.e., grant writing, presenting, networking) for underrepresented (UR) PhD trainees, there are comparatively fewer opportunities for leadership development. We present a blueprint for Leadership in PhD (LeaP), a cohort-based program aiming to equip UR biomedical research trainees with skills to succeed as academic, industry, and community leaders. In contrast to intensive short-term programs or workshops, LeaP is a longitudinal 4-year experience with an blend of didactic, self-directed, and experiential learning. First year trainees receive foundational didactic instruction on core leadership concepts coupled with facilitated peer discussions and one-on-one coaching support. We outline a program evaluation framework that assesses student learning, satisfaction, and program efficacy. Evaluation data from the inaugural year is presented and discussed.

KEYWORDS

leadership, diversity, equity, inclusion, stem education, professional development

Introduction

Despite efforts to diversify the composition of the scientific workforce, stark disparities remain (Woolston, 2021). A recent analysis conducted by the Pew Research Center in 2021 found that Black and Hispanic workers remain underrepresented in the science, technology, engineering, and math (STEM) workforce compared with their share of all jobs (Fry et al., 2021). This disparity is acutely evident in the life sciences where Black and Hispanic workers comprise 6 and 8%, respectively, of the workforce despite overall representation

across all jobs being 11 and 17%. Representation of women in the life sciences has fared better—in 2019 women comprised 48% of the life sciences workforce compared to 34% in 1990. Intersectional inequalities, however, compound individual deficits in representation. These inequalities are evident when considering the number of minority women in science, and further, when examining performance-based metrics including sub-discipline funding rates and scholarly impact (Kozlowski et al., 2022). Perdurance in academic science also lags in minoritized groups. A recent study by Lambert and colleagues surveying postdoctoral fellow career choices found that academia-bound UR postdocs have significantly lower confidence in securing funding, feelings of selfworth, and research career self-efficacy. Exit rates of minoritized postdocs from research/academia were also significantly higher than their white/majority counterparts (Lambert et al., 2020).

Representational diversity and equity concerns persist for those fortunate to secure research intensive faculty-level positions (Rosenbloom et al., 2017; Chance, 2021). Bias within the promotion and tenure process coupled with a lack of cultural sensitivity and social awareness regarding the professional and personal needs of UR faculty has resulted in substantial attrition. Women, for example, reached a remarkable milestone in 2003 when rates of medical school matriculation first hit the 50% mark. Despite that achievement, the proportions of women associate professors (37%) and professors (25%) in medicine in 2020 indicate that academia is not capitalizing on those gains in student interest in pursuing medical and science-based careers (Brown, 2020). Due to numerous individual and systemic roadblocks hindering progress through academic rank, the number of women and underrepresented faculty in leadership positions remains low. According to a 2017 overview of university presidents reported by the American Council on Education, women comprised 30% of all University president positions. Further, within the already slim proportion of women presidents, only 9% identify as Black women, and only 4% as Hispanic women—compared to the roughly 83% who identify as White (ACE, 2017). A closer look at these numbers further reveals another disturbing trend in that minority women who do attain senior leadership are often serving at lower-ranked, less prestigious schools with small endowments, and limited resources for research and advanced scholarship (ACE, 2017). These intersectional inequities are not limited to the University presidents. Across all research and health sciences jobs, women hold 52% of reported leadership positions, while racial/ethnic minorities represent 11% of leadership, and Black/Hispanic women only 3% (CUPA-HR, 2020).

Addressing representational inequities in biomedical and senior academic leadership promotes individual fairness and justice, and if done in conjunction with rigorous training and support, could tackle a much larger issue of culture and climate concerns in academia. Many from minoritized groups report difficulties penetrating, enduring, and thriving within the privileged (i.e., older, white, and male) academic ecosystem. Diversifying leadership would inherently promote and foster professional networking and development of underrepresented trainees/junior fellows/faculty who have shared life experiences and seek role models/inspiration. Indeed, representational diversity is known to be a strong catalyst for career progression within underrepresented communities, which further yields benefits for the overall enterprise (Hunt et al., 2018). Another benefit of leadership training is tackling

the pervasive culture of ineffective leadership and poor mentoring in academia (Rockey, 2014; Choi et al., 2019; Bond et al., 2020; Canti et al., 2021; Gutierrez et al., 2021)—a state largely resulting from inadequate training, inconsistent continuous professional development, and little accountability. Racism, xenophobia, and microaggressions present additional barriers for UR trainees and contribute to heightened stress, demotivation, and feelings of exclusion. LeaP supports students as they navigate these and other issues as a cohort, while honing critical resiliency skills.

Leadership development at academic research centers is not new. Many institutions, centers, and scientific societies have stepped up and begun addressing this critical societal need. Key programmatic activities include robust mentor training initiatives, resilience and wellness support for diverse trainees, networking opportunities, and targeted leadership development opportunities. Notable leadership from the National Institute for General Medical Sciences, the National Science Foundation and cross-institutional networks/alliances including the National Research Mentoring Network (NRMN) (Ahmed et al., 2021) and the Leadership Alliance (Ghee et al., 2014, 2016) has seeded a movement of academics dedicated to improving culture/climate and fostering the development of diverse leaders (Tucker Edmonds et al., 2022). That said, significant gaps and opportunities remain. First, many (if not most) leadership initiatives target individuals at an advanced career stage—typical requirements include holding an advanced degree and/or an active or pending faculty appointment. Second, many programs employ an intensive, immersion-based approach—excellent for building knowledge and seeding skills but limited in the ability to support longitudinal skill perdurance and further development. Third, programs targeted to early-stage trainees, such as advanced degree candidates, tend to feature a defined curriculum that prioritizes knowledge building and group skills while providing fewer opportunities for individual skills exploration and development.

With the Leadership in PhD (LeaP) program, we aimed to create a supportive and flexible learning environment for underrepresented PhD trainees to discover, explore, and refine leadership skills essential for leading an inclusive workplace. While LeaP does not have the ability to singlehandedly address systemic issues hindering UR advancement in academia, we contend that it does have significant value as it provides UR trainees with foundational skills to succeed and thrive as leaders in the biomedical sciences. Here, we outline a conceptual framework for LeaP, describe key programmatic features, present a summary and evaluation of year one, and discuss future directions for this work.

Program overview

Conceptual framework

The core mission of the LeaP program is to facilitate the development of knowledge, skills, and abilities essential for future biomedical research leaders in academia, industry, and society. The cohort-based model is intended to provide a safe and encouraging

environment in which to engage in active self-discovery and peer-to-peer support. LeaP takes a student-centered learning approach, whereby programmatic components are designed to meet the needs of individual students. Characteristics of a student-centered learning model include competency-based progression, student engagement in knowledge construction, shared-decision making, choice, and continuous reassessment/reevaluation of student needs (Neumann, 2013; Cornelius-White, 2016; Starkey, 2017; Bremner et al., 2022). Indeed, student-centered pedagogy is gaining world-wide traction as an approach to improve learning outcomes (Burner et al., 2016; Connell et al., 2016; Cheng and Ding, 2020).

Within the framework of the student-centered learning approach, we sought to include elements of self-directed learning via one-on-one coaching sessions. Self-directed learning involves an intentional process of identifying wants and needs, setting goals, planning, experimentation, and evaluation (Knowles, 1975; Goleman et al., 2009; Taylor and Hamdy, 2013). This term has shown up regularly in the adult education literature since the 1970s, often defined in a context-specific manner. One constant, however, is the emphasis on learner autonomy (i.e., the ability to drive their own learning), which we achieved via coaching (Loeng, 2020). Indeed, according to Losch et al. (2016), "coaching can be defined as a collaborative helping relationship, where coach and client ('coachee') engage in a systematic process of setting goals and developing solutions with the aim of facilitating goal attainment, self-directed learning, and personal growth of the coachee". Coaching sessions included support around identifying strengths and areas for growth as well as desires and motivations; all with a focus on goal setting and crafting a plan for experimentation and real-world skill practice. Monthly coaching sessions gave students the opportunity to evaluate progress and to expand or create new goals to support their individual skill development. This repeated (monthly) cycle built in support for self-directed learning during students' first year in LeaP, and ultimately taught students a life-long process for engaging in continued learning and growth (an essential skill for leaders).

Finally, considering that scholars engaged with LeaP are biomedical PhD trainees, concerted efforts were made to (1) provide scholars with experiences complementary to but distinct from thesis advisory committees or workshop-based professional development opportunities, (2) tailor contact hours to fit within the constraints of a rigorous PhD curriculum, and (3) support progressive leadership development throughout their biomedical PhD training.

Cohort selection

One of our primary objectives was to foster development of leadership skills in trainees historically underrepresented in biomedical research. Here we defined underrepresented (UR) in accordance with National Institutes of Health (NIH) NOT-OD-20-031. In order to be as inclusive as possible, we did extend program participation/nomination to include allies (i.e., those who do not identify as UR but who demonstrate a commitment to diversity and inclusion). A modified version of the PhD application rubric was used—one that equally prioritized the following four areas: (1) leadership potential, (2) research potential, (3) industry, persistence

and commitment to education/personal growth, and (4) academic performance/research experience. With applicant permission, LeaP candidacy was evaluated in parallel to the PhD admissions process. Eight students were selected for the inaugural LeaP cohort, the majority of whom self-identified as female, and all of whom self-identified as meeting the NIH UR definition.

Leadership competencies

The four-year LeaP experience centers around leadership competencies described in and assessed by the Occupational Personality Questionnaire (OPQ) developed by SHL Group Limited (Joubert and Venter, 2013; Furnham et al., 2014). While the OPQ is broadly used in the context of talent acquisition and management, Mayo Clinic has long partnered with SHL to leverage the OPQ for upper-level leadership preparation. Here, the OPQ identifies strengths, working styles, and opportunities to develop capability and unlock potential—thus setting the stage for individualized leadership coaching. We aimed to adapt and streamline this approach for LeaP participants. Ultimately, ten core leadership competencies were selected from the OPQ that served as the foundation for the didactic and discussion-based material covered in Year 1: (1) leading and deciding, (2) working with people, (3) adhering to principles/values, (4) presenting and communicating, (5) persuading and influencing, (6) creating and innovating, (7) planning and organizing, (8) adapting and responding to change, (9) coping with pressures and setbacks, and (10) relating and networking (Joubert and Venter, 2013; Furnham et al., 2014). These ten competencies were selected (a) based on their broad applicability to diverse potential biomedical careers and (b) to complement, synergize with, and reinforce competencies addressed by career development programs such as the NIHsponsored Initiative for Maximizing Student Development (IMSD). LeaP program activities were aligned to these ten competencies and are described in more detail below.

Programmatic components

The overarching structure of the LeaP curriculum involves iterative and progressive cycles of didactic learning, facilitated peer discussions, and coaching (self-reflection, goal setting, experimentation, and skill-practice). In discussions, LeaP facilitators joined learners as they discussed, processed, and applied information, strategies, and skills covered in the previous week's seminar (Burgess et al., 2020). Coaching sessions followed these discussions and further enhanced learning by inviting students to self-reflect, set goals, and create an action plan (Deiorio et al., 2016). This structure is reflected in the year-to-year plan; year one focuses on concept assimilation, cohort building, self-discovery, goal setting, and skill practice, year two on continued self-directed learning and skill implementation/practice (e.g., choosing study topics and materials, leading discussions, mentoring first year LeaP scholars, pursuing community projects, etc.), year three on individual or small group-based intramural (institutional) leadership experiences, and year four on tailored extramural (e.g., community-based, scientific society, etc.) leadership experiences.

Opportunities in years three and four represent a partnership with the Mayo Clinic Graduate School of Biomedical Sciences (MCGSBS) Career Development Internship (CDI) program, whereby career exploration will be coupled with leadership skills building/practice. With this plan, students can progressively apply skills learned in year 1 in peer-based settings, within the institution, and finally, in the community. A summary of planned activities is depicted in Figure 1. Year one activities are described in more detail below.

The first year was presented over 9 months during the 2021-2022 academic year, with a staggered start with PhD coursework to give time for students to acclimate to their home campus, classes, and laboratory rotations. Prior to official program launch, an introductory session was held where program mission, motivation, and structure were shared and discussed. Five units were outlined each with sub-themes that were intentionally designed to address the ten leadership competencies described above (see competency map in Figure 2). Units were structured as monthly modules each containing a seminar (open to all graduate students), a facilitated discussion, and an individual coaching session. Modules were structured in order to (1) provide foundational information (as some students may not have had prior exposure to certain leadership concepts/terminology), (2) permit deeper, group-based exploration of key concepts covered in a given seminar, and (3) facilitate individual reflection with a coach and to set relevant goals for that would reinforce learned concepts. Two units (emotional intelligence and communication) were presented as two-month modules with six touchpoints instead of three. Most meetings were held virtually given that LeaP included MCGSBS students from all three Mayo Clinic campuses (Rochester, MN, USA; Scottsdale, AZ, USA; Jacksonville, FL, USA). Brief unit descriptions are as follows:

<u>Unit One</u>: *Introduction to Leadership*. Sub-themes: (1) meaning of leadership, (2) leadership styles, and (3) introduction to emotional intelligence. Discussion highlights: Students were asked to (a) identify their go-to leadership styles, (b) consider when/why it may be beneficial to adapt their leadership style, and (c) reflect on how to go about navigating leadership styles while maintaining an inclusive and equitable environment.

<u>Unit Two</u>: *Emotional Intelligence (EI)*. Sub-themes: (1) self-awareness, (2) self-management, (3) social awareness, and (4) relationship management. Discussion highlights: (a) the importance of (and strategies to develop) self-awareness and social awareness, (b) ways to practice self-management and relationship management, and (c) scenarios to prompt discussion around how to apply EI skills in the workplace.

<u>Unit Three</u>: Communication. Sub-themes: (1) presenting and communicating, (2) communication styles, and (3) conflict management. Discussion highlights: (a) communicating for impact, (b) the importance of relationships, (c) communication styles and how they relate to EI, and (d) prompts to discuss real-life applicability (e.g., how does understanding of our own and others' communication styles help us manage conflict?).

<u>Unit Four</u>: *Creativity and Innovation*. Sub-themes: (1) creating and innovating, (2) planning and time management, (3) organization and execution, and (4) persistence. Discussion

highlights: (a) brainstorming techniques, (b) the importance and impact of creativity and innovation, and (c) conversation around how to create a safe and supportive environment that encourages different points of view, experimentation, failure, and persistence.

<u>Unit Five</u>: Flexibility and Resilience. Sub-themes: (1) adapting to change, (2) flexibility, (3) dealing with pressures and setbacks, and (4) resilience. Discussion highlights: flexibility and resilience strategies were shared during an integrated in-person two-day retreat held on the Rochester campus.

Evaluation plan and results

Evaluation plan

Leadership in PhD program evaluation was developed collaboratively with the co-program directors and the OASES Director of Evaluation prior to the start of the program in Fall 2021. Being a new program, evaluation design focused on gathering both qualitative and quantitative data that would be useful for ensuring program quality and for identifying improvements for future years. Qualitative data gathered included post-session suggestions for session and program improvements, as well as post-program narrative feedback about the program and its impacts, described later in this paper. Understanding participant views on the value of the sessions, as well as on the impact of the educational components and the program overall were top priorities.

After each of the five units, a survey was sent asking scholars to: (a) rate the effectiveness of the session and coaching, (b) describe 1-2 main take-aways from the discussions, (c) rate the role of the lecture, discussion, and coaching in supporting those take-aways, and (d) make suggestions for session and program improvements. This survey approach parallels other surveys at the institution to evaluate participant satisfaction with the programming. The survey questions were uniform across all units but referenced unit-specific content. At the close of the program, qualitative data were gathered from participants in a focus group setting to query the value of the program and its various components, as well as opportunities for improvements.

The evaluation for years 2-4 is designed to: (a) gauge participants' reaction to the programming (Kirkpatrick, 1998); (b) identify components of the program that were working as intended (Stufflebeam et al., 2000), and assess short-term outcomes of the components on the participants (Van Velsor et al., 2010). Evaluation instruments will include post-session reaction surveys, periodic touchpoint surveys, year-end focus groups, peer assessments, PhD mid-program and exit surveys, and a final portfolio encompassing summaries and reflections on experiential (years 3 and 4) projects. A final OPQ will be administered and results discussed at individual exit meetings/coaching sessions. LeaP alumni will be encouraged to visit and periodically present to/serve on panels for current scholars. Following graduation, LeaP program directors will partner with MCGSBS alumni relations staff to maintain communication with and track career progression of former scholars.

Leadership in PhD (LeaP) Program Summary YEAR 4 YEAR 1 YEAR 2 YEAR 3 **Extramural experiential** OPQ/assessments opportunities Intramural experiential Supplementary didactic opportunities opportunities 5 Unit lecture series Mentoring or coaching Optional mentoring of Mentoring or coaching Facilitated peer Check-in with program 1st year LeaP student discussions Check-in with program Mentoring or coaching coordinator Individual coaching Optional involvement in scholar-led meetings Optional involvement in Optional involvement in Optional involvement in scholar-led meetings scholar-led meetings scholar-led meetings **Cohort-building activities** Cohort-building activities **Cohort-building activities Cohort-building activities** Retreat Retreat Retreat Leadership portfolio/exit assessments

Program summary. Shown (L to R) are summaries of key activities proposed for each year in the program.

UNIT 1 UNIT 2 UNIT 3 **UNIT 4 UNIT 5** Intro to Emotional Creativity & Flexibility & Communication Intelligence Leadership Innovation Resilience What does it mean to be a leader? Coping with pressures/setbacks to Emotional Intelligence UNITS/ Organization and execution Relationship management Presenting and communicat Creating and Innovating THEMES Communication styles Conflict management Adapting to change eadership styles Self-management Time management awareness **LEADERSHIP** COMPETENCIES Social 1. Leading and deciding x x x 2. Working with people х X X X X x x X x 3. Adhering to principles/values X x X X x X X 4. Relating and networking X X X x X X 5. Persuading and influencing X X X X X X x x x 6. Presenting and communicating X X 7. Creating and innovating X X X X 8. Planning and organizing x x x 9. Adapting/responding to change X X X X X X X 10. Coping with pressures/setbacks

FIGURE 2

Competency map. Shown (across) are the five year one units and associated sub-themes. Rows indicate specific leadership competencies derived from the OPQ. An "X" indicates, at minimum, the competency coverage addressed by a given unit sub-theme. Note that most competencies were covered by more units than indicated above.

Results

Overall, the unit survey results were highly positive. Between 4 and 5 participants responded to each survey for a general response rate of between 50 and 63%. Participants were asked to rate their level of agreement (5-point Likert scale from strongly

disagree to strongly agree) with various statements about the lecture, discussion, and coaching, as well as whether they were likely to use the information they learned in the session. Sessions were highly rated with all respondents across all topics either strongly agreeing or somewhat agreeing that: (a) the lectures broadened their understanding of various leadership styles, (b) the post-lecture

discussions were effective in deepening their knowledge about the topic, (c) coaching supported their personal understanding of their strengths and areas for growth, and (d) they were likely to use the information they learned in the unit. In those ratings, most participants strongly agreed with those statements (Figure 3A). Notably, for all sessions, all respondents strongly agreed that the coaching was supporting their personal understanding of their strengths and areas for growth.

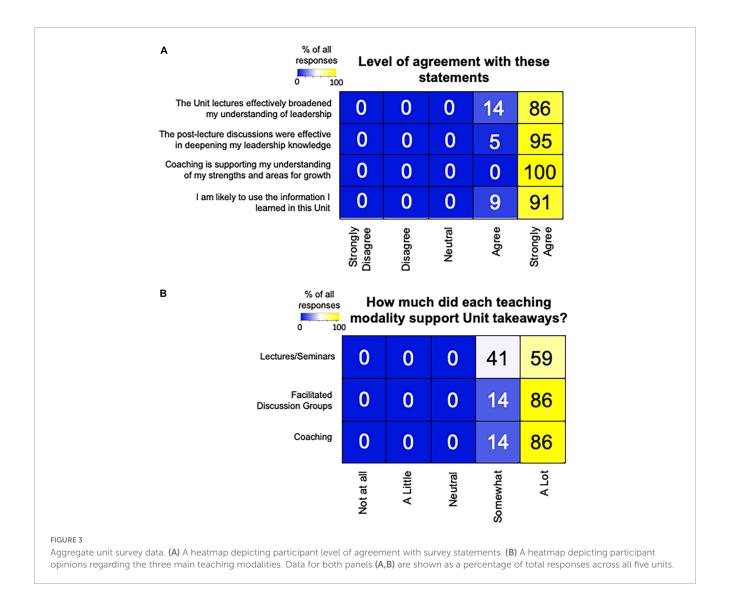
For each unit, participants were asked about their main takeaways, as well as the extent to which the lecture, the discussion, and the coaching supported those take-aways. Participants all indicated that the lecture, discussion, and coaching supported their take-aways either "somewhat" or "a lot" with most checking "a lot" (Figure 3B). Participants had relatively few suggestions for improving the teaching modalities; however, suggestions that did surface tended to be related to creating more opportunities for participation and discussion.

In order to gather qualitative data on the value and impact of the program, a focus group was held in early June 2022 following completion of Year 1 of the program. Six of the eight participants attended the focus group. The two participants who were unable to attend the focus group provided feedback separately, one in an individual interview and the other with written responses. The same set of guiding evaluation questions was used for all participants:

- 1. *Strengths*: What were the strengths of the program in your opinion?
- 2. Group dynamics: Describe the group dynamics of the participants in the LeaP program. Was the size of the group good (or too small or too large)? How important was it that all the participants come from groups underrepresented in biomedical research?
- 3. *Facilitation:* Tell me about how the co-program directors facilitated the group. To what extent did the way they facilitated work for you? Is there anything that could have been done to improve the facilitation?
- 4. *Coaching*: Tell me about the coaching. Was the coaching valuable to you? If yes, in what ways? Is there anything that could have been done to improve the coaching?
- 5. Impact: What impact has participation in the program had on you? Do you feel that you are able to apply what you learned in the program? What impact do you think participation in the program will have on you as you go through the rest of your PhD program?
- 6. Changes and recommendations: Were the session topics the right ones? Are there any other topics that could or should have been included? What suggestions do you have for improving the program for the participants who start this upcoming academic year?
- 7. Other comments: What other suggestions or comments do you have about the program that have not been covered in the questions above.

Participants were overwhelmingly positive about the LeaP program, its value, and its impact. Summarized, representative findings included:

- The size of the cohort was just right. A significantly larger cohort would have made it more difficult for participants to share openly and freely. That openness and ability to be vulnerable with the group helped participants reflect on and make sense of their experiences through the year without judgment and led to a greater sense of belonging.
- Participants in the program developed long-lasting bonds with each other over the year and with the program leads. Having come to the program with shared lived experiences, they were able to gain validation for their experiences as first-year PhD students.
- The coaching was clearly a critical component of the program.
 Participants described tailored experiences to their individual needs and styles. Participants appreciated session flexibility and the lack of a rigid agenda or approach. All described how they had changed over the year and been impacted by the experience.
- Participants all thought that the topics chosen were important, and the format of the units—with a presentation by a speaker on Tuesdays, a follow-up discussion among the participants, along with the coaching—helped them reflect on and think deeper about the topic and how it applied to their graduate school experience. The separation between the presentation and the follow-up discussion was appreciated, as it left time for participants to "marinate" on the topic.
- Participants noted repeatedly that the program co-directors did an excellent job facilitating the discussions, being prepared with probing questions, helping moderate when discussions got intense, and avoiding judgment. They also attributed the sense of belonging that they gained, in part, to their facilitation.
- Some suggested that it would be better if the individuals
 who present on Tuesday do not attend the discussion session
 on Thursday because their presence sometimes changed and
 restricted open discussion among the participants. Although
 the speakers only attended the discussion sessions once during
 the year, the participants noticed the difference in the quality
 of the discussion.
- Some longer-term impacts described by the participants included: (a) having a cohort they could rely on throughout their PhD program, (b) finding a sense of belonging, (c) feeling validated through cohort discussions, (d) building their communication skills so they could advocate for themselves and others, including about physical and mental well-being, (e) gaining clarity about their personal and professional goals, (f) learning to be assertive and intentional about those goals, and (g) coming to see themselves as leaders and feeling empowered to lead.
- A few suggestions were made for improvements to the program: (a) ensuring that the discussions held on the Thursday following the presentation are specifically for open discussion among the participants (without the presence of the speakers), (b) getting the cohort together as early as possible in the academic year so that connections could be nurtured sooner, (c) having the program be in person, (d) developing a cohort mission statement within each group, (e) ensuring a better gender balance among the cohort, (f) expanding the program with additional cohorts, and (g) keeping quality coaching as a central aspect of the program for future cohorts.



 Participants would like the program to continue for their cohort, with Year 2 involving the development of a project proposal that could impact their communities and with Year 3 being used to implement that project. They noted that the format of Year 1—with a focus on reflection and gaining great knowledge of their strengths and areas for growth—was an important stepping stone enabling them to have a broader impact in future years.

Discussion

Persistent concerns with representational diversity, equity and fairness, and feelings of inclusion/belonging in biomedical research underscore the need to diversify research leadership and support leadership skills development (Elmassian, 2014; Onyura et al., 2019; True et al., 2020; Wang et al., 2021). LeaP tackles these issues by providing a space for underrepresented biomedical research trainees to build community, self-reflect, learn new leadership skills, and to progressively practice and refine those skills in a safe and supportive environment. To that end, LeaP joins a growing number of programs aiming to modernize biomedical education

and training by providing early-stage leadership development opportunities (Byington et al., 2016; Meador et al., 2016; Blanchard et al., 2019; Spector and Overholser, 2019; Kumar et al., 2020; Wang et al., 2021). What sets LeaP apart from many of these programs, however, is that LeaP (1) promotes skills development early on in biomedical training, (2) intentionally weaves diversity, equity and inclusion topics into the curriculum, (3) cultivates social interactions via a cohort model that supports trainee persistence and retention (Estrada et al., 2019), and (4) promotes not only the acquisition of new skills, but skill perdurance via coaching and longitudinal (four year) engagement. The value of LeaP derives from the intentional combination of these component parts.

Despite participant feedback being largely positive, LeaP is not without limitations. One limitation was the unit survey response rate of 50–63%. Reflecting upon this underwhelming response rate, we acknowledge that we should have provided time during individual sessions to complete surveys. That said, with intentional planning and scheduling, final focus group participation was 100%. Given that the unit survey feedback elicited less robust/complete data, greater weight was placed on the final focus group qualitative data due to 100% participation. A second limitation was the gender imbalance (majority female) of this inaugural cohort. Gender was

not considered in LeaP selection and the initial cohort did not have balanced gender representation. This can, in part, be explained by an overall imbalance in the entire PhD matriculating class (\sim 75% identifying as female).

Based on promising early returns, it is tempting to propose rapid program growth/scaling to make the program accessible to anyone who wants to participate. While this is an admirable goal, it will be important to carefully reflect on what made the program meaningful to participants in the first place. Two themes stood out in the evaluations: trust/the cohort effect and the value of coaching. Indeed, most participants cited a strong culture of trust—between each other as well as with the program directors as critically important. So how could/can growth occur while maintaining a safe and supportive environment? Parallel cohorts is one idea, although issues of cohort variability would have to be addressed. This includes careful selection and onboarding of any new facilitators and coaches. A team/task-based approach may help alleviate this concern, whereby curricular components (facilitation, coaching, etc.) could be split into teams guided by a lead facilitator or coach that could help set and maintain standards. Scaling LeaP effectively will take time, thoughtful consideration, and input from/consultation with education and leadership experts.

It is important to note that we do not yet know the long-term impact of LeaP. How effective are such student-centered leadership programs? This question is difficult to answer given often inadequate long-term follow-up and widely varying definitions of what it means to be "successful" (Onyura et al., 2019; Price et al., 2020). That said, with LeaP, we are anticipating lasting impact by leveraging a two-pronged approach consisting of (1) coaching to enhance self-reflection and accountability and (2) experiential/service-learning opportunities to reinforce and amplify self-efficacy and personal growth (Long et al., 2011; Boehmer et al., 2021). Both tactics are evidence-based leadership development strategies that we believe could be implemented as a component of formal PhD/advanced degree training, particularly for historically marginalized and underrepresented trainees.

What opportunities lie ahead for LeaP? Certainly, there is potential to adapt the model to other health professional programs at Mayo Clinic. To that end, there are numerous leadership development initiatives at other medical institutions (Long et al., 2011; Blumenthal et al., 2014; Meador et al., 2016; Mokshagundam et al., 2019; Brown, 2020; Coe et al., 2020; Kumar et al., 2020; Daaleman et al., 2021; James et al., 2021) that could integrate core LeaP concepts/approaches to tailor the experience to medical students, clinical fellows, or other professional degree seekers. Additionally, while trainee-focused initiatives are highly valuable and critically important, efforts to "train the trainer" to best support UR trainees (Norman et al., 2021) are needed and could be an interesting expansion of/addition to LeaP offerings. Another version of this approach is the concept of reverse mentoring (Garg and Singh, 2019; Gadomska-Lila, 2020). This experience could be particularly beneficial for LeaP participants as it would show them that learning and leadership are bi-directional and that while established faculty/leaders may have expertise in many areas, many are willing to seek out and engage in continued personal growth.

Finally, should a program like LeaP be available to both minority and majority trainees? While thinking about the answer to this question, it is important to remember and consider historical disparities in biomedical leadership as well as obstacles and challenges that underrepresented trainees continue to face today. Equity and fairness do not equate with equality and some disparities may need to be addressed with specialized programs such as LeaP, where a culture of trust and safety is paramount and may be compromised in open settings where "outsider" feelings persist. We opted to open some activities—notably the didactic seminars—to all graduate students, while the majority were targeted to LeaP scholars. Striking a balance of targeted and untargeted activities will require continuous feedback and reflection from all stakeholders moving forward. Ultimately, our hope is that the initial success of LeaP is recognized as a viable model of UR trainee leadership development, such that similar approaches are initiated, adapted, and sustained at biomedical institutions worldwide.

Data availability statement

The original contributions presented in this study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

Author contributions

MD and JD: conceptualization and manuscript preparation. MD and LS: data collection. All authors: program design and manuscript editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Building school leaders' instructional leadership capacity through virtual professional leadership learning communities

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Introduction: Research is still emerging on how to develop school leaders' instructional capacity. We implemented research-based practices through virtual professional leadership learning communities (VPLCs) for building school leaders' instructional capacity. We examined school leaders' perceptions of (a) the effectiveness of the VPLC as a vehicle for improving instructional practices, (b) the essential components of an effective VPLC, and (c) school leaders' instructional leadership practices through discussions within VPLC.

Methods: The participants of this study were 40 school leaders at the principal and assistant principal levels in elementary schools in the state of Texas. Based on the research purpose and design, multiple types of data were collected to explore participants' perceptions and experiences of VPLC.

Results: Based on both qualitative and quantitative analyses of the data from questionnaires and interviews, we found that this VPLC allowed participants to share leadership research and resources and provided them with an avenue for collaborating and communicating with other school leaders. The results of the qualitative data revealed two major components that the participants thought a VPLC should provide based on their experiences in the program (a) community building through collaboration and (b) reflective modules and discussion.

Discussion: An SST explanation can potentially reduce some aspects of homophobia among both healthcare professionals and lay people. Also, worryingly, Chinese healthcare professionals, especially medical professionals, reported more homophobia than lay individuals These VPLCs were regarded as grounds for innovation, as participants worked together with other school leaders to find problems and determine creative and workable solutions focused on building instructional capacity in serving high-needs schools. Thus, school leaders can be supported through sustained, effective professional learning in communities of practice, or virtual professional leadership learning communities.

KEYWORDS

leadership development, virtual professional development, school leaders, virtual professional leadership learning communities, instructional leadership, high needs schools

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Introduction

High-needs schools suffer from a lack of effective school leaders (Beesley and Clark, 2015; Grissom et al., 2019), yet noted, those in leadership positions at high-needs schools often face more challenging conditions, such as academic performance, lack of resources, and less parental involvement (Tan, 2018). Furthermore, Wieczorek and Manard (2018) found that newly appointed school leaders often fill leadership positions in low-performing schools, adding a relative lack of experience to existing challenges. However, we contend that technological advancements can be harnessed to address such challenges. As technology improves, so does the ability to disseminate information to major stakeholders, including school leaders, and so does the ability to have those leaders communicate and work with each other or with experienced leaders. Thus, technology has provided breakthroughs in professional learning. As such, professional development and technological improvement merge and work in harmony to produce a growing experience that school leaders can negotiate with their learning needs within flexible schedules.

Irby et al. (2017) suggested that virtual professional development allows school leaders to engage in the professional development at their own pace. Since their learning experiences are ongoing, school leaders can benefit from stronger levels of support over a more extended period than that provided by a short face-to-face professional development. One way to provide sustained interaction is through professional leadership learning communities (PLC), a method that holds promise (National Academies of Sciences, Engineering, and Medicine, 2015), yet for which there exists little evidence (e.g., Haiyan and Allan, 2021). As such, we suggest the support of school leaders through research-based virtual PLC (VPLC, Irby, 2020) aligned to the needs of their leadership positions. A successful strategy for encouraging VPLCs among school leaders, as suggested by Irby et al. (2022), is to pair them with virtual mentor coaches so they can receive support as they participate in VPLCs. As a result of such a strategy, school leaders may develop their leadership skills and build their capacity. Therefore, the purpose of our study was to determine how the practicing school leaders at the principal and assistant principal levels perceived (a) the effectiveness of VPLC as a vehicle for improving their instructional leadership practices, (b) the essential components of an effective VPLC, and (c) their instructional leadership practices through discussions within VPLC. For the purpose of our study, we used the Texas Principal Standards as outlined in the Texas Administrative Code (Title 19, Part 2, Chapter 149, Subchapter BB, RULE §149.2001). The standard related to instructional leadership is as follows:

The principal is responsible for ensuring every student receives high-quality instruction.

- (A) Knowledge and skills.
- (i) Effective instructional leaders:
 - (I) prioritize instruction and student achievement by developing and sharing a clear definition of high-quality instruction based on best practices from research;
 - (II) implement a rigorous curriculum aligned with state standards;
 - (III) analyze the curriculum to ensure that teachers align content across grades and that curricular scopes and sequences meet the particular needs of their diverse student populations;

- (IV) model instructional strategies and set expectations for the content, rigor, and structure of lessons and unit plans; and
- (V) routinely monitor and improve instruction by visiting classrooms, giving formative feedback to teachers and attending grade or team meetings.
- (ii) In schools led by effective instructional leaders, data are used to determine instructional decisions and monitor progress. Principals implement common interim assessment cycles to track classroom trends and determine appropriate interventions. Staff has the capacity to use data to drive effective instructional practices and interventions. The principal's focus on instruction results in a school filled with effective teachers who can describe, plan, and implement strong instruction and classrooms filled with students actively engaged in cognitively challenging and differentiated activities (Texas Administrative Code, 2014, p. 1).

Principals and assistant principals are assessed with the Texas Principal Evaluation and Support System (TPESS; Texas Education Agency, 2023) using the Texas Principal Standards. The TPESS incorporates the following instructional leadership competencies: implement rigorous curricula and assessments aligned with state standards, including college and career readiness standards; help develop high-quality instructional practices among your teachers that improve student performance; monitor multiple forms of student data to inform instructional and intervention decisions, you contribute to maximizing student achievement, and ensure that effective instruction maximizes the growth of individual students, supports equity, and eliminates the achievement gap.

Review of literature

We followed a standard literature review in which we reported the current status of the research on the topic (University Writing Center, 2023). Specifically, we summarized information on virtual professional leadership learning communities for school leaders.

Irby (2020) defined a PLC as a community of participants who come together to learn new approaches to teaching, assessing, differentiating, and collaborating on future practices. To be a PLC, there must be reflective learning taking place with current information processed with the input of new information (Irby, 2020). In many cases, PLCs will have a facilitator who establishes a meeting agenda, guides discussions, and records outcomes. According to McLester (2012), different professional development models, including PLCs and personal learning networks (PLNs), are being used widely. Schools have increasingly adopted staff-led PLCs for improving professional learning (McConnell et al., 2013). A strong PLC shapes leaders' practices effectively and is an invaluable tool for helping leaders to develop their instructional leadership capacity. Earlier researchers (e.g., Irby et al., 2022, 2023) suggested that groups of school leaders collaborate effectively through PLCs using virtual mentoring and coaching to improve their professional learning.

According to Owen (2014), PLCs can also be personalized and easily accessible while building a culture of trust and respect and offering practicing school leaders directed activities, personal feedback, and modeling. Effective PLCs share some common principles. Hord and Sommers (2008) summarized the literature on PLCs and listed five key components each should include. First,

supportive, and shared leadership requires collegial and collective participation. Shared leadership and responsibility foster the ongoing process of collective inquiry and the level of engagement in PLCs. Second, establishing shared values and vision among the members of PLCs promotes a commitment to student learning and guides practices about teaching. Third, effective PLCs create opportunities for educators to collectively construct new knowledge and apply their learning to practice in individual contexts. Fourth, ensuring supportive conditions is crucial in maintaining professional learners' growth. Supportive conditions determine "when, where, and how" the members meet regularly as a unit to conduct professional learning. Finally, the shared practice involves constructively assessing each other's behaviors in PLCs. An effective PLC encourages educators to evaluate others' views and practices and provide constructive feedback in a way that promotes in-depth reflective analysis and assimilates new ideas.

The interest in using VPLC for leadership development is expanding dramatically, as VPLC provides school leaders with access to useful resources and new developments in leadership practices. Much still needs to be done to identify those aspects of professional development that contribute to professional growth and learning for leaders. Irby et al. (2017) suggested that professional development using communities of practice allows school leaders to work at their own pace while prioritizing their level of engagement. Since their learning experiences are ongoing, school leaders can benefit from stronger levels of support over long periods of time than that of short face-to-face professional development. Thus, there is a need to develop and support school leaders through research-based professional development by using VPLCs that are specifically aligned with their contextualized leadership needs.

Collaborative networks and professional communities are encouraged for school leaders (Fowler, 2022). School leaders need to learn how to monitor and improve their teachers' new practices. In addition, they must become leaders of learning in order to form a community of practice. However, there is a paucity of research on school leaders' professional development through PLCs and few researchers (Balyer et al., 2015) have investigated how PLCs facilitate school leaders' professional development. During the COVID-19 pandemic, Tipping and Dennis (2022) examined the role of school leadership approaches using reflective practice in PLCs. They found that school leaders with online learning practices built their capacity and created opportunities to discuss online teaching practices, problem-solve, and build rapport with teachers. VPLCs can be implemented in various forms, including online platforms for sharing discussion forums and synchronous courses, thereby fostering collaborative learning opportunities for school leaders. Thus, school leaders and other staff members must be supported in various ways as they implement VPLCs in their schools. This includes continual realtime coaching support as well as constant formal professional development programs using PLCs. Leadership development programs using VPLCs are needed more than ever. However, the experimental research on VPLCs is still inconclusive. To address this issue, we sought to build school leaders' instructional leadership capacity at the campus level through VPLCs across the state of Texas and beyond.

As part of virtual mentoring and coaching, we also introduced and enhanced VPLCs for testing within the United States. As part of the Department of Education Supporting Effective Educator Development Grant Program [SEED grant (#XXXX; Irby et al., 2017)], which focused on teachers who serve large numbers of English-speaking students [referred to in government documents as students whose native language is not English; however, in this study, we will refer to them as emergent bilinguals (EBs) and economically challenged students (ECs); free or reduced lunch students]. At-risk students, including EBs and ECs, are defined by the Texas Education Code (TEC) as those at risk of dropping out. High-needs schools (or schools with high-needs students) serve both EB and EC students as well as students within the categories within TEC 29.08.

Conceptual framework

Based on social constructivism, Collins et al. (1989) developed cognitive apprenticeship theory, which focuses on "learning through guided experience" with a core teaching method of modeling, coaching, and scaffolding (p. 457). According to McLester (2012), different professional development models, including PLCs and PLNs, are widely used. The PLC model which includes groups of staff members collaboratively learning with the goal of improving professional learning, as suggested by Tong et al. (2015), has become increasingly popular in many school districts. Quality leadership requires strong PLCs as an effective tool for shaping leaders' practices. Previously, researchers (e.g., Harris et al., 2017; Bush, 2019) suggested that groups of school leaders from related content areas working collaboratively in PLCs effectively improved professional learning and increased student achievement.

Given their social nature, PLCs are grounded in social constructivism theories (Wenger, 1998). In PLCs, educators broaden their views and gain new insights by listening to others' professional experiences from a variety of contexts. In addition, PLCs also employ the concept of cooperative learning from Vygotsky's (1978) theories of development. According to Vygotsky's zone of proximal development framework, supporting learners' independent performance of new practices requires scaffolding. This theory helps explain how educators support each other and collaborate toward problem-solving through social interaction in PLCs. Furthermore, Wenger's (1998) community of learners model also provided a theoretical foundation for PLCs. According to Wenger (1998), "new experiences, contexts, conversations, and relationships necessitate reframing previous understandings, as the meaningfulness of our engagement in the world is not a state of affairs, but a continual process of renewed negotiation" (p. 54). In other words, learning occurs in a dynamic process through communities of practice.

Irby (2020) defined VPLCs as online collaborations of teacher leaders who come together to learn new approaches and focus on relevant issues with leading questions, engagement, applied research, discussion, examples, and guided reflections that move the group members to transform their practice. Each VPLC follows the L.E.A.D.E.R. model (see Figure 1).

Using different approaches, our research team built the conceptual framework, using the major components of virtual professional development (Irby et al., 2017), on effective leadership practices for school leaders, including VPLCs. The leadership group worked through the Applied Research, Discussion, and Reflection portions of the model. L.E.A.D.E.R. the model was applied to all VPLCs. Those are as follows:



- 1. The *Leading Question* helps the participating school leaders focus on the topic with a deep, probing question.
- 2. The *Engagement* provides the participants with an example or a visual representation of the topic.
- The Applied Research provides research-based evidence that supports the topic. Without the applied research in a VPLC, we consider that new information is not interjected in the discussion.
- 4. The *Discussion* section consists of thoughtful, insightful questions that build on the leading question(s) and applied research section of the VPLC.
- 5. The *Example* section gives participants a concrete example they can take away to improve their instructional leadership practice.
- 6. The final step in the VPLC is *Reflection*.

Irby et al. (2017) developed the VPLC because: (a) school leadership and peer mentoring in VPLCs still remain rather underexplored; (b) rural school leaders serving high-needs schools have no other district colleagues with which they can be paired for face-to-face mentoring; and (c) busy school leaders have limited time for face-to-face professional development and can benefit more from ongoing, online coaching support and feedback before and after work. The research team worked with our partners, iEducate and Texas Center for Educator Excellence (TxCEE), to implement activities for participating school leaders. The VPLC steps included: (a) selecting the facilitator; (b) determining the VPLC meeting via GoToMeeting; (c) introducing leading questions and engaging participants; (d) working in groups through applied research, discussion, and example; and (e) discuss reflection and transformation as a team-next goal. The VPLCs provided its participants with communication tools, the ability to collaborate with their peers, and the opportunity to access professional learning courses, a calendar, and other resources.

Purpose of the study and research questions

As major components of professional development, professional learning networks, and communities still require more research focused on possible ways to build school leaders' instructional capacity. Despite the increasing use of virtual platforms as venues for leadership development, little is known about how school leaders interpret their online professional learning experiences through virtual communities of practice. There is no published research that we could find reporting the evaluation of VPLCs' efficacy in improving school leaders' instructional practices. The proposed strategy in this study was to improve instructional leadership through VPLCs because

school leaders and other staff members can be supported as they participate in their communities of practice. Since researchers (Earl and Fullan, 2003; Drago-Severson and Maslin-Ostrowski, 2018) who have studied effective professional development have called for school leaders to translate their learning into instructional practice. We addressed how the practicing school leaders perceived VPLC quality as a component of the XXX project's virtual professional development.

In this study, we will discuss VPLCs as they relate to school leaders. Next, we will present the attributes of VPLCs for school leaders when compared to face-to-face PLCs. The goal of this VPLC was to build instructional capacity at the campus level for school leaders using communities of practice. We investigated participating school leaders' perceptions of (a) the effectiveness of the VPLC as a vehicle for improving instructional practices, (b) the essential components of an effective VPLC, and (c) school leaders' instructional leadership practices through discussions within VPLC. To this end, we formulated the following research questions:

- 1. How did the practicing school leaders perceive the effectiveness of VPLC as a vehicle for improving their instructional leadership practices?
- 2. What did the practicing school leaders perceive as essential components of an effective VPLC?
- 3. In what ways did the school leaders reflect upon their instructional leadership practices through discussions within VPLC?

Method

Research context and design

This study was derived from the project [The grant number for the project Accelerated preparation of leaders for underserved schools: Building instructional capacity to impact diverse learners (APLUS, U423A170053), Irby et al., 2017], under the U.S. Department of Education SEED Program, which focused on the school leaders working in high-needs schools across the state of Texas. This federally funded project supported the leadership development of effective school leaders by (a) recruiting and preparing leaders, (b) providing VPLC activities to current school leaders, and (c) increasing the number of highly effective school leaders in schools with high concentrations of high-needs EBs and ECs. This project has been promoting diversity in the educator workforce by recruiting male and female school leaders, particularly targeting participants who identify as African American, Hispanic/Latino, American Indian, and Asian.

Based on the research purpose and design, multiple types of data were collected to explore participants' perceptions and experiences of VPLC. A concurrent mixed methods design was employed, in which quantitative and qualitative data were collected separately, and then the data were combined during interpretation (Creswell and Clark, 2017). Specifically, a self-report questionnaire was designed and administered to explore participants' perceptions and experiences regarding the VPLC. Based on the questionnaire data results, we conducted in-depth and more extensive hour-long interviews with the participants.

TABLE 1 Principals' demographic information.

Variables	Categories	N	Percentage (%)
Age	25-34	5	12.5
	35-44	13	32.5
	45-54	17	42.5
	55+	5	12.5
Ethnicity	White	19	47.5
	Black or African		
	American	8	20.0
	Asian	3	7.5
	Hispanic	9	22.5
	Other	1	2.5
Administrator	<1 year		
experience		6	15.0
	1-2 years	6	15.0
	3–5 years	11	27.5
	6–10 years	10	25.0
	11+ years	7	17.5

Participants

The participants of this study were 40 school leaders at the principal and assistant principal levels in elementary schools in the state of Texas. Ranging in age from 25 to 55, 12.5% of the participants (n=5) were younger than 35; 32.5% (n=13) of the participants were 35-44 years old; 42.5% (n=17) were 45-54 years old, and 12.5% of the participants (n = 5) were older than 55. Approximately, 48 % (n = 19) of the participants identified themselves as White, followed by Hispanic (22.5%, n = 9), Black/African American (20%, n = 8), Asian (7.5%, n = 3), and Others (3%, n = 1). Concerning their experience of being a school leader, 15% of participants (n=6) had below 1 year of experience, 15% of them have worked as an school leader for 1-2 years (n=6). As displayed in Table 1, 27.5% of participants (n=11) reported that they have worked as a school leader for 3-5 years, 25% of them (n=10) claimed their experience as 6–10 years, and 17.5% of them had above 11 years (n=7) of experience as a school leader. Detailed information on the participants' demographic variables is provided in Table 1. These 40 participants completed the questionnaire to evaluate the effectiveness of the VPLCs. Ten of these 40 participants volunteered, based on their availability, to take part in individual semistructured interviews. These 10 participants ranged in years of experience between less than 1 year and above 5 years of being an assistant principal or principal, and the majority (eight of 10) were self-identified as White and two as Hispanic.

Description of intervention

The virtual professional leadership learning communities for school leaders

The research team provided sustained and collaborative professional learning for school leaders through reflective activities and presentations. Through GoToMeeting, an online video conference platform, the school leaders followed an agenda for discussing related

modules and activities. Specifically, the research team developed an action plan to promote learning by targeting instructional quality. The research team further developed strategies to increase participant success in a virtual environment, providing flexible due dates, clear guidance, organized course modules, and frequent communication so participants would know what was expected of them. Strategies included reflective, personalized, and experience-based content that was relevant and personal to the participating school leaders. Included in this virtual learning environment was a continual practice in relationship building and exploring how mutual collaborations lead to both individual and campus improvement. Participants were engaged in intense discussions and shared leadership strategies they could use to build multi-tiered systems to foster the promise of equitable learning opportunities. Through virtual modes of delivery, learning communities were created to increase professional growth while establishing a career-long support network that could only exist because of this virtual learning environment. The VPLC included (a) lessons and supporting sources applicable to various school settings, (b) communication tools to promote interaction among school leaders, and (c) collaboration tools for discussion, planning, group assignments, and leadership development.

The PLC was virtually designed as a leadership development tool to address prevailing issues in developing school leaders' instructional leadership capacity. We conducted VPLCs with virtual mentor coaches. We provided VPLC during the eight-week for school leaders. Through LogMeIn GoToMeeting, which is an online video conferencing software, the virtual mentor coaches led the school leaders in a discussion during the VPLC modules and activities. To accomplish this, they developed an action plan to work with the leaders, which focused on improving instructional quality to improve learning. Specifically, they developed strategies to increase success in a virtual environment by providing clear guidance and communication so that the leaders knew what was expected of them during their participation in VPLCs.

We provided ongoing professional learning and encouraged the practicing school leaders to share their experiences with colleagues to promote ongoing learning within VPLCs. To improve school leaders' leadership skills, we worked with the school leaders to help them determine what avenues might help their instructional leadership teams improve instruction for EBs and ECs while reflecting on their own leadership practice and ultimately helping teachers achieve better results. The participants took part in scheduled VPLC sessions on a weekly basis. Our research team worked to implement reflective dialogues for participating school leaders. Our VPLCs included discussions related to research, application exercises, practical implementation strategies, and collaboration with peers as they focused on building instructional leadership capacity to influence the teaching of EBs and ECs. As participants engaged, they were encouraged to share their learning, pose questions, offer recommendations or insights, and challenge themselves and each other to continue to learn and reflect. Each VPLC took between 30 and 45 min to complete, and it was a requirement to review the module and respond to the reflection section of each prior to the VPLC engagement. These modules used with the VPLCs included leadershiprelated topics such as (a) vision and mission, (b) building community engagement, (c) bullying prevention, (d) critical dialogue, (e) cultivating leadership, (f) culturally responsive leadership, (g) developing instructional skills specialist, (h) improving instruction, (i) leading and learning in PLC, (j) monitoring curriculum and instruction, (k) sharing

leadership, (l) strategic planning, (m) using data to make instructional decisions, and (n) using the Root Cause Analysis.

Instruments

We collected the participants' perceptions of the VPLC's effectiveness in building their instructional leadership. We collected the data *via* (a) a questionnaire and (b) semi-structured interviews.

Questionnaire

The questionnaire had three sections. The first section queried participants' demographic information. The second section included seven items on a 5-point Likert scale. The items measured the participants' evaluation of the overall effectiveness of VPLCs in terms of (a) content, (b) organization, (c) creating interest in a topic, (d) involvement of participants, (e) use of instructional aids, (f) pace of delivery, and (g) effectiveness of the L.E.A.D.E.R. training model. We selected a 5-point Likert scale due to higher discrimination among five response options and less tendency toward the neutral point compared to the 4-point format (Adelson and McCoach, 2010; Leung, 2011). In the third section, we asked participants to respond to three open-ended questions to: (a) evaluate the virtual training format; (b) share the most effective aspects of the VPLC meetings, and (c) express what takeaways they gained from this VPLC. We developed this questionnaire to explore participants' perceptions of their learning while engaged in learning communities focused on VPLC. The questionnaire items examined the practicing school leaders' perceptions of the L.E.A.D.E.R. process for a VPLC and coaching practices. Two experts evaluated the content of the questionnaire items. We used their feedback on the clarity of each item and reworded some elements based on their comments.

Semi-structured interview

Semi-structured interviews with the 10 school leaders were recorded, transcribed, and analyzed. According to Ivankova et al. (2006), it was appropriate to reformulate the questionnaire items into semi-structured interview questions, and some additional interview questions corresponded to the themes that emerged from the participant's responses to the questionnaire. Ultimately, there were nine interview questions which included: (a) Have you had any experience with PLC?, (b) What was your experience with our project VPLC?, (c) What strategies did coaches use to engage you?, (d) How did coaches help you grow and influence your leadership skills?, (e) What were some examples/evidence of changes in your leadership practice throughout the VPLC (confidence, instruction, language knowledge, interests, and behaviors)?, (f) What are differences related to face-to-face PLC as opposed to virtual PLC in which you have been engaged, (g) In what ways has the VPLC L.E.A.D.E.R. helped you to build teachers' instructional capacity?, (h) What are the benefits and challenges that you have encountered with the VPLC?, (i) How has VPLC influenced your leadership skills?, and (j) Are there any other comments or suggestions you have to improve the quality of the VPLC?. These questions were considered as only a starting point for a discussion in which participants were encouraged to express their views and concerns about the effective aspects of VPLC in our study. To ensure the validity of the interview protocol content, the initial interview questions were reviewed and adjusted by two experts in the field of Educational Administration before they were utilized.

All participants were asked permission to record their interviews. Each participant was interviewed individually *via* GoToMeeting, and interviews lasted about 30 min for each participant *via* the online platform.

Data collection procedures and analysis

Based on the research design, data were collected to explore participants' perceptions of VPLC effectiveness. Participants' responses to the seven-item, 5-point Likert scale portion of the questionnaire were analyzed using descriptive statistics with crosstabulation and frequency counts. For the quantitative data analysis, the demographic information and participants' responses to the questionnaire questions were analyzed employing descriptive statistics to describe the VPLC questionnaire items on a 5-point Likert scale.

For the qualitative analysis, we coded the data that emerged from interviews and participants' responses to the questionnaire *via* the Strauss and Corbin (1990) constant comparative method. We first worked through open coding, then axial coding, and finally selective coding within predetermined codes noted as attribute codes by Miles et al. (2014). The predetermined codes were aligned to the seven items noted in the first section of the questionnaire.

The recurring themes were selected through comparison within and between each individual participant's responses. The researchers continued to explore the emerging themes until they observed no change in the data. We triangulated the data by reviewing it independently and then coming together to arrive at a consensus about the themes. The data were triangulated to identify points of convergence and divergence (Creswell and Clark, 2017) via each investigator. Then, according to Patton (2002), we compared the interview results with the results of the open-ended questions in the questionnaire, explained key patterns and elements, and identified similarities and differences within and between sources.

Trustworthiness and credibility

For establishing trustworthiness and credibility, we adopted three strategies: (a) low inference descriptors, (b) member checking, and (c) investigator triangulation (Johnson, 1997). We used low inference descriptors to collect verbatim quotes from participants' interview responses. Member checking was accomplished by having the participants validate that the information was consistent with their responses. We adopted investigator triangulation (i.e., multiple researchers) in collecting and interpreting the data to enrich trustworthiness through individual coding, and we coded the interviews independently using the matrix. After completing the coding independently, two of the researchers reviewed the emerging themes until they reached an agreement.

Results

We organized the findings by the three research questions and their results that follow. We present the questionnaire results to answer the first research question. To address the second research question, the results correspond to the interview questions related to how

TABLE 2 Descriptive statistics of the effectiveness of the VPLC.

The effectiveness of the VPLC on the following items:	Mean	SD	Percentage (%)
Content	4.75	0.44	75
Organization	4.95	0.22	95
Creating interest in a topic	4.05	1.15	50
Involvement of participants	4.47	0.95	60
Use of instructional aids	4.23	0.75	50
Pace of delivery	4.63	0.59	67
Training Materials (L.E.A.D.E.R. model)	4.68	0.61	75

TABLE 3 School leaders' qualitative questionnaire responses.

Major themes	Thematic descriptors
Convenience	Time Location
Collaboration	Interaction with colleagues Exposure to diverse perspectives Review discussion archives
Content	Reflective modules Resources for future use

practicing school leaders perceived a successful VPLC should provide related to their experiences in the program.

Research question 1. How did practicing school leaders perceive the effectiveness of the VPLC as a vehicle for improving their instructional leadership practices?

This research question was answered using both quantitative and qualitative data. Post-test scores with descriptive statistics were used to answer this research question quantitatively. Table 2 indicates that the mean ratings on the effectiveness of the VPLC by participants ranged from 4.05 to 4.95 out of 5 possible points. The participants assigned the highest scores to the organization (M=4.95, SD=0.22), content (M=4.75, SD=0.44), and training materials (M=4.68, SD=0.61) of the VPLC. Among the lowest ratings were for creating interest in topics, with a mean value of 4.05 (SD=1.15), and the use of instructional aids (M=3.74, SD=1.08).

Qualitatively, open-ended questions for the post-test were used to also determine participants' perceptions related to the effectiveness of the VPLC. The practicing school leaders in the VPLC attributed their leadership gains to the built-in training activities that pushed them to discuss the content they just studied and promoted a reflection focused on changes they could make on their campus and the potential impact on school improvement. As displayed in Table 3, the qualitative analysis results revealed three major themes that the participants thought were effective based on their experiences in the VPLC (a) convenience, (b) collaboration, and (c) content.

Convenience. As part of this VPLC, participating school leaders developed a continuous professional learning program on campus using virtual professional training and support, especially during the COVID-19 time. In VPLC, participants had access to use professional development resources at their convenience and at their own pace. A school leader, for example, stated that "... the virtual learning environment allows flexibility and supports professional learning." Another participant commented:

The VPLC context increased scheduling flexibility and created possibilities for stimulating collaboration and knowledge-building among school leaders near and far away.

Similarly, participants' responses to virtual delivery focused on change. Participating school leaders emphasized the importance of continuous professional growth through these changes, as well as reflection opportunities with their educator colleagues.

Collaboration. The participants confirmed in most of their responses that interaction *via* communities of practice was very helpful. The findings revealed that participation and interaction through the VPLC were encouraged, creating a trusting and collaborative environment. Collaboration with educator colleagues led to the establishment of rapport between novice and professional school leaders and increased administrative support. One of the participants reflected:

My principal and I [as an assistant principal] participated in the program and we were both in two different cohorts. Both can talk about it, redesigned some of the things that are going on our campus, and were able to be refreshed because of the program.

The virtual mentor coaches positively facilitated the VPLCs by connecting the participants with other leaders from different campuses. A participant commented:

I feel that 1/3 of the PLCs are working as a true collaboration. The other 2 are more in compliance mode.

These VPLCs also provided a forum where practicing school leaders could get their questions answered in a timely manner through collaboration with their group members.

Content. An analysis of the participants' responses revealed that the VPLC content was highly associated with school leadership development, specifically focused on instructional leadership development. Participants asserted that the sustained, focused content and teaching and non-exam materials met their needs in leading a school successfully with teachers and administrators. Furthermore, the content was research-based with real-world examples, which enabled the participants to obtain an in-depth understanding of leadership knowledge and practices. One school leader participant in the program stated:

I really appreciate the case scenarios and examples and non-examples given in each module. This helps me visualize and make the research come to life.

The participants were asked to indicate whether this virtual community had met their expectations and gave their feedback and recommendations concerning the critical features facilitating

TABLE 4 School leaders' responses: themes and sub-themes.

Major themes	Sub-themes	Thematic descriptors
Community building	Participation and	Collaborative learning
	collaboration	Communities of practice
	Professional learning	Convenience
	networks and	Increased confidence
	supervision	Providing a safe space
Reflective modules and	Interactivity and	Networking and connection
discussion	inquiry	Knowledge sharing
	Enhanced engagement	Improved instruction

VPLC. Participants' responses to the questionnaire questions indicated a positive evaluation of the VPLC.

Research question 2. What did school leaders perceive as essential components of an effective VPLC?

The results of the qualitative analysis of the semi-structured interviews revealed two major components that the participants thought a successful VPLC should provide based on their experiences in the program (a) community building through collaboration and (b) reflective modules and discussion. Following are the practicing school leaders' responses to the interview questions (Table 4). Pseudonyms were used to ensure the participants' anonymity. The excerpts below were taken from the participants' interviews and reported as low-inference descriptors.

Community building

Participation and Collaboration. The school leaders confirmed in most of their responses that interaction *via* communities of practice was very helpful. The findings revealed that participation and interaction through VPLC were encouraged, creating a trusting and collaborative environment. This VPLC provided a wide range of learning opportunities and has been effective in providing real-time feedback from coaches and facilitators, helping busy school leaders receive ongoing professional development support, modeling, and feedback. A participating school leader, for example, commented:

With my personality, I love the virtual aspect because it's kind of like I can do it wherever and where I was able to be a part of the VPLC. If I stayed late at work and we had a meeting I could just stay at work and do it. If I went home, I was able to do it. If I went to my stepdaughter's soccer game, I was able to sit on the sidelines and still be able to do it.

Another participant said:

We were encouraged to share our learning, pose questions, offer insights, and challenge each other to continue to learn and collaborate.

In the VPLC sessions, an interactive and collaborative environment was found to be key in influencing the level of engagement of school leaders. The participants were encouraged to

share their past experiences and support each other during the VPLC sessions. The participants took part in the VPLC at their chosen time, allowing them to become familiar with their facilitator and build a sense of community with other leaders from different campuses and districts. They were more actively engaged in the VPLC when adopting the partnership principles of equality and reciprocity. Leadership growth and collaboration were among the major themes revealed by the participants' responses.

Professional Learning Networks and Supervision. Another theme emerging from the participants' responses and reflections indicated that their knowledge was constructed through interactivity, inquiry, and supervision with other group members, providing guidelines that helped campuses develop their instructional capacity and knowledge. Participants attested that the virtual aspect of the program gave them an opportunity to make connections and establish relationships with their colleagues participating from other schools and districts. Such networking was apparent in this participant's representative comment:

One of the things that I find stimulating is seeing the growth not only for myself but also for the teacher's growth when we see a teacher that needs some support and then when you see that they're taking your feedback.

Since beginning the program, participants have developed an increasingly trusting relationship with their coaches and have also, in the last PLC, volunteered to share documents illustrating excellent practice. Additionally, the practicing school leaders have contacted each other outside the VPLC to further enhance their professional learning, as evidenced by the VPLC recordings. In addition, the PLC that focused on improving instruction seems to be valuable in improving participants' instructional leadership practice. A participant, for example, specifically commented:

The virtual coach provided more directions, and clearer expectations, or found a way to inspire the teachers to embrace the vision of ongoing learning and supervision.

The VPLC also provided a forum where practicing school leaders could get their questions answered in a timely manner through discussion and collaboration with their group members. The participants agreed that this VPLC was effective, consistently commenting that the sequenced VPLC meetings helped them structure their discussions and collaboration efforts. They remarked that the VPLC positively facilitated their instructional leadership allowing them to connect with other leaders from different campuses.

Reflective modules and discussion

Interactivity and Inquiry. Another theme emerging from the participants' responses and reflections indicated that the participants' knowledge was constructed through interactivity, inquiry, and supervision with other group members. This dynamic helped develop their instructional capacity and knowledge through guidelines that benefited both their own development as well as their respective campuses. The participants attested that the virtual aspect of the program gave them an opportunity to make connections and establish relationships with their colleagues from other schools and districts. A school leader stated:

I think one of the benefits of this platform is that you have multiple representations of different types of organizations and school systems. So, you have small school districts, larger school districts, and possibly charter school districts. And so, with that being the case, you know reinforcing previous ideas or thoughts.

Another participant added:

I haven't had a chance to implement my visions necessarily fully, but this platform allows you to speak in the model as if you were that campus leader and then get that feedback

The VPLC for school leaders provided increased network possibilities; it further motivated learning forums and discussions that bridge research into practice while increasing effective instructional practices. With a focus on building instructional capacity, the program modules and discussions helped the participating school leaders create a social network of support and supervision to know (a) the value of their professional communities and (b) how to use new leadership and/or instructional strategies they had previously learned but no longer used with fidelity in their current practices.

Enhanced engagement. By discussing how school leaders can work collaboratively on the issues of learning and teaching that matter to their campuses, the discussion and activities inspired them to reflect on their own leadership practice. The participants' responses indicated a significant positive impact of VPLC on leaders regarding their self-regulation, awareness, reflection, and leveraging of their strengths. Echoing the same ideas, a school leader added:

And I think the program with all the meetings that we had really helped to share experiences and to make connections between those experiences ... and it's going to help me to make better decisions in the future. But I think the way that the program was presented was very easy to follow and very easy to understand right just like I said having this Canvas support was a plus there.

Most of the participants also shared their newly gained knowledge with other leaders in their communities. The participating leaders reported that certain practices they learned in the modules are not practices on their current campus. As they maintained, their goal is to "begin transferring what they have learned" to improve instruction on campus.

Since beginning the program, participants have developed an increasingly trusting relationship with their coaches and have volunteered to share documents illustrating excellent practices in the last VPLC. Additionally, the practicing school leaders have contacted each other outside the VPLC to further enhance their professional learning, as evidenced by VPLC recordings. In addition, the VPLC focusing on improving instruction seems to be valuable for improving participants' instructional practice. A school leader, for example, went on further and commented:

This program allowed me to grow as a leader as I said before. It kind of allowed me to think about every time we had a different lesson, and I was able to talk to other administrators and other districts about the different lessons

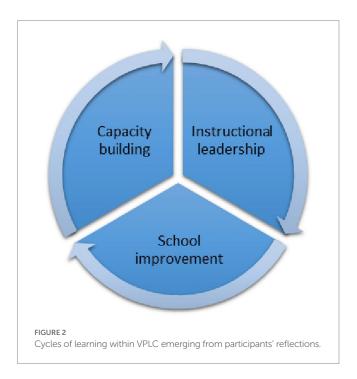
Likewise, a school leader commented:

This PLC helped me to make sure that I spend most of my day in the instructional part of my job. There are a lot of administrative functions and responsibilities that really can drain the number of days that you think about how you use it. I guess that's one of the things that I find effective.

The participants perceived discussion and collaboration, enhanced engagement, and opportunities to reflect and practice as the essential components of an effective VPLC. The practicing school leaders that were enrolled in the program were able to expand their leadership knowledge and experience by actively participating in the discussions while working on collaborative projects. In addition, the level of engagement was also reported as a key factor that affected learning. The participants believed that the mentoring and coaching structure and interactive environment (i.e., face-to-face or virtual) were the main elements positively impacting their engagement. Finally, an effective VPLC should also provide substantial opportunities for participants to reflect on their learning and practices. Reflection could be reinforced by a well-designed curriculum as well as the mentoring and coaching embedded in the VPLC.

Research question 3: In what ways did the school leaders reflect upon their instructional leadership practices through discussions within VPLC?

We addressed the participants' reflections on their instructional leadership in VPLCs. Based on their experiences in and reflection on the professional development modules, the practicing school leaders applied the reflective modules to instructional leadership while using insights gained from reflection for problem-solving, translating theory to practice, and developing plans. The participants found the reflections within VPLCs personalized and relevant to their jobs, which resulted in the three cycles of learning related to professional development emerging from their responses as captured in online discussions (Figure 2). We called this



a cycle of learning because the participants primarily learned from their experiences and progress in enhancing their instructional capacities through the three elements of (a) Capacity Building, (b) Instructional Leadership, and (c) School Improvement. This cycle began with the first element moving to another.

During the *Capacity Building* stage, the practicing school leaders partnered with each other to identify and sustain their instructional capacity for improving teaching and learning in school. During the *Instructional Leadership* stage, the participants were prepared to hit the goal by enhancing teacher instructional capacity at their schools and describing strategies to improve instruction for EB and EC students. Online discussions within VPLC allowed for interaction and collaboration among school leaders as they learned from their colleagues and shared their best practices for discussion, planning, and group assignments. Finally, during the *School Improvement* stage, participants were able to refine their professional goals through the process of community engagement. Therefore, the participants learned that their future practice would be impacted by trusting others to lead with them.

Reflection occurred within VPLC. The goal participants indicated by their reflections was related to their own instructional leadership abilities for improving student achievement and school effectiveness. Table 5 renders the major themes emerging from participants' reflections.

Following are the practicing school leaders' online discussions within VPLC. Pseudonyms were used to ensure the participants' anonymity. The excerpts below were taken from the participants' reflective discussions and reported as low-inference descriptors. No changes were made to the excerpts taken from the participants' reflections regarding grammar, punctuation, style, etc.

Cycle of learning 1: Capacity building

Strategic Planning and Management. This cycle helped the participating school leaders to share their leadership skills while building others' capacity to lead. As they went through professional development, they began to evaluate and seek the needs of the community. Most of the participants highlighted the significance of

TABLE 5 Reflections through online discussions within VPLC: cycles of learning.

Themes	Sub-themes	Thematic descriptors
Capacity building	Strategic planning and management Sharing leadership	Critical dialogues Change management Cultivating leadership Collective capacity
Instructional leadership	Coaching and supporting teachers Monitoring curriculum and instruction	Teacher development Engagement with instructional practices Providing resources Improving instruction Student learning
School improvement	Developing and leading the school's vision Stakeholder involvement	Campus Climate Vision and mission Data-driven decision

including all stakeholders in the strategic part of planning. For example, one participant stated:

We need to include all stakeholders to build a program that will meet the needs of all students and have a safe place for families to come and get assistance and truly trust us.

As documented in their reflections, the practicing school leaders began to establish a rapport with their campus leadership teams and a sense of trust and relationship building because of the professional development they received. The practicing school leaders' proficiency with the strategic planning process has helped them solidify their knowledge and affirm the importance of the campus needs assessment process. For instance, one participant noted:

I need to be strategic in how I phrase questions or what type of feedback I request, but I think it would be helpful to understand the current climate in our community.

As the school academic year progressed, the participants continued to work with other leaders on campus to make sure they were doing what they needed for EBs and ECs. The participants realized that they needed a leadership team that they could trust to help them move forward with their campus vision and initiative.

Sharing Leadership. The participants learned from their group while inspiring, encouraging, and motivating others to reach their potential. One of the school leaders, for example, reflected:

In the past, I was convinced that if I wanted something done right, I needed to do it myself. However, I now know that is not going to produce the results that I desire. I have to open myself up to sharing knowledge with my team and trusting them as professionals to get the job done.

A school leader added:

I have always believed in the value of shared leadership in teachers and in building their capacity. I want them to take command of their action plans and show ownership as they themselves become their own change agent.

The school leaders could team up, drawing on expertise and sharing leadership. Their goal, as most of the participants reflected, was to build more relationships with and capacity in future leaders.

Cycle of learning 2: Instructional leadership

Coaching and Supporting Teachers. One of the sub-themes that emerged under Cycle of Learning 2 was coaching and supporting teachers. The participants maintained that they were not only responsible for ensuring that each student was receiving a high-quality education, but also for coaching teachers to improve their instructional capacity in working with EBs and ECs and providing them with support within the VPLC. School leaders who were at the frontline of instruction and interacting with students needed to be coached and coaching other leaders.

The practicing school leaders in this study continued the goal of increasing rigor in the classroom by using peer observation and

feedback, utilizing their district specialists. Aside from VPLCs being conducted by team leaders, one of the school leaders reflected:

Next school year, we are going to be coaching and mentoring the new teachers that will continue with the program for the first graders. We will have the opportunity to monitor student's progress in language development in both languages. And we will continue to receive coaching from our [VPLC] consultants.

Another school leader added:

The insights I have gained that transformed my practice are the importance of teachers' support to have high-impact teaching and learning, and the importance of a shared clear vision so principals can have the help of supporting staff.

One of the school leaders declared that she did not have a formal coaching framework in place on campus. Based on the discussions and reflections in the VPLC, she developed a coaching framework for each campus meeting that helped her identify purpose, clarity, and accountability. In addition, she encouraged members of each VPLC to visit other classrooms to learn both effective and ineffective methods. The school leader reflected further, adding:

In grades 2-5, there is only one teacher per grade/content, so I have chosen to use the PLC model to establish opportunities for coaching. I would refer to it more as a collaborative process in which the "coach" shifts based on need and expertise. Within each PLC, I have at least one "go-to" individual to serve as a leader for various areas from data analysis to instructional strategies.

Furthermore, a participant shared:

I'd like to have a reflection sheet for the teachers to complete first and then match to my notes for better alignment of their selfreflection views with my notes.

The school leaders in VPLCs were provided with a reflection sheet. A school leader pointed to the significance of having a reflection sheet that might increase the alignment between their views and teachers' reflections.

Monitoring Curriculum and Instruction. The practicing school leaders were constantly monitoring the impact of the reflective dialogues in cultivating curriculum and instruction during the VPLCs. One of the participants, for example, commented:

I feel validated that the work we are doing in our weekly staff development to cultivate instructional capacity is on the right path. Since we just started this cycle, it is hard to say how effective it will be just yet. The end goal is to craft educators who can naturally reflect day to day.

The participants' goals were mostly to improve instruction and ensure consistency in monitoring and providing feedback to their teachers. With a common rubric, teachers and leadership teams have been able to have conversations across grade levels. This has also led to incorporating reflection into the specific curriculum. One of the participants reflected:

Self and regular evaluation of the implemented program is a must to see the outcomes and take necessary actions towards the ultimate goals. We must fix the weak areas and continue emphasizing the strengths areas by appreciating the individuals and teams involved in the process.

Most of the practicing school leaders found their conversation in the VPLC particularly enlightening. The support was giving school leaders what they needed, as opposed to creating one-size-fits-all staff development opportunities in which everyone participates and interacts with the same content and at the same level. This made the participating school leaders think that they need to differentiate their professional learning opportunities. A participant, for example, asserted:

In the past, I have always placed a huge emphasis on quality instruction and student growth but overlooked the importance of social and emotional learning which stretches us to equip our students with tools to engage in critical dialogues. [Critical dialogue was a topic of VPLC]

The process of monitoring helped the participating school leaders troubleshoot the curriculum concerning instructional effectiveness. Together with teachers, they were able to come up with some goals they wanted to accomplish for their campus. As evidenced by the participants' reflections, most of them asserted they must ensure that each student has received high-quality instruction and that learning is occurring daily. As reflected in their portfolios, the participants were able to observe how teachers and instructional specialists were planning and preparing for students on a weekly basis. Thus, they maintained that those teachers who needed additional assistance have been placed in individual and coaching plans with specific goals.

Cycle of learning 3: School improvement

Developing and Leading the School's Vision. Under this subtheme, we found that the participants' reflections revealed a significant positive impact of VPLC discussions on their goal-directed self-regulation, self-awareness, and reflection, and leveraging their strengths. The participating school leaders assured that they had the responsibility to influence the school culture and would keep the vision as the foundation for all priorities and decisions. For example, one of the participants stated:

After much dialogue with colleagues via this platform, I am encouraged to write a journal and note the best practices and/or approaches that have proven instrumental to current leaders. I am eager to embrace a campus, however, to ensure it will be a campus of excellence under my leadership, it is vital to enhance my knowledge in platforms such as this with leaders that are experienced as well as leaders that are aspiring to become agents of change at future campuses.

Most school leaders reflected that the VPLC modules were effective, consistently stating a desire for their campus improvement planning committee to meet and review the vision and mission statements to help determine if they are applicable to students today and to their decision-making process as a team. The findings indicated that the reflection was helpful since it offered the school leaders a

chance to work on the mission and vision statements to optimize their school performance and minimize difficult areas within the school community. A school leader, for example, commented:

Honestly, our mission and vision should be revised and considered for an update including all stakeholders in the process. With this new planning format, we may re-identify our mission and vision, and evaluate our current statements and how they are valued within the school community. It should be done in a well-planned timeline with all stakeholders' involvement by using observable data in the process.

One of the school leaders added:

Changes to the vision are welcome as we also change to meet the needs of our students. Changes inform our practice and although a statement on our letterhead it is also where all decisions and practices are measured against. It will not be changed during the school year but revisited and rewritten during the summer preceding the school year.

As a result, the participants' reflections related to VPLC provided interesting insights to lead changes in schools' visions and inspire successful vision and mission statement design.

Stakeholder involvement. Stakeholder involvement emerged as a subtheme under Cycle of Learning 3 to improve the school PLCs. Toward the end of the VPLC sessions, the participants believed that their current administration was taking steps to make better and informed decisions that targeted the school's needs. One of the participants wrote:

I believe it is so important to involve all stakeholders in the process no matter where you are. I also believe that our vision and mission statement is current, but I also believe it may be something that we would like to look at since it has been something that we have not looked at in the past 3 years. It is important to see if all stakeholders believe that the vision and mission is current and or needs any slight changes.

Another school leader added:

We need schools and families to work together. Everybody has a part to play. When these partnerships are formed, everyone benefits.

Similarly, a participant stated:

We as educators need to work with families because I think it is not only important to build stronger students in schools but also to build the capacity of families and stronger communities.

The participants mostly confirmed to include teachers, families, and community members in the VPLCs. The participants believed that all stakeholders should meet to identify areas in need of growth. Reflections allowed the participants to share important leadership research and resources and provided them with an avenue for collaboration with other school leaders as they proceeded through the VPLC modules and activities.

Discussion

Based on both qualitative and quantitative analyses of the data from questionnaires and interviews, we found that this VPLC allowed participants to share important leadership research and resources and provided them with an avenue for collaborating and communicating with other school leaders. These VPLCs were regarded as grounds for innovation, as participants worked together with other school leaders to find problems and determine creative and workable solutions focused on building instructional capacity in serving high-needs schools. With a focus on building instructional capacity, reflection modules and discussions helped school leaders create a support network, identify the importance of VPLC, and determine how to apply new leadership and instructional strategies.

While all school leaders can benefit from effective VPLC, this virtual leadership community, in accordance with quality professional development programs (e.g., Schaap and de Bruijn, 2018; Johnson and Voelkel, 2021), exhibits certain characteristics, including (a) discussion and collaboration, (b) enhanced engagement, and (c) opportunities to reflect. VPLCs yield collaborative professional communities of practice and reflective leadership practices in terms of better networking and collective learning. The findings are consistent with PLC characteristics proposed by earlier researchers to increase the PLC impacts. For instance, Archibald et al. (2011) suggested that an effective PLC should (a) focus on the core content; (b) provide opportunities for collaboration; and (c) include reflective modules. Hord and Sommers' (2008) conceptual framework for PLCs also highlighted the importance of collective learning, sharing experiences and practices, and supportive learning environments. Fisher et al. (2019), in the PLC+ model, directly focused on equity and building a collective agency for educators to share that agency with students and remove barriers to learning. Levy-Feldman and Levi-Keren (2022) revealed a strong relationship between school leaders' professional development in school PLCs and the growth-oriented mindset to help move professional learning forward, as well as the importance of providing a "tailor-made" professional development in schools (p. 1). In addition to program characteristics mentioned in previous PLC frameworks, we add that in the VPLC, how the virtual sessions were organized and conducted was also important. Specifically, if VPLCs training materials are organized and conducted under the L.E.A.D.E.R. model, they can yield school leaders more opportunities for reflection, networking, and building collective agency related to instructional leadership. We found that sustained shared leadership and goal-oriented learning during the VPLC were imperative in fostering participants' accountability, especially in a virtual professional learning environment.

Research is still emerging on how best to develop school leaders' instructional leadership capacity. Our research team implemented research-based practices for building school leaders' instructional capacity through the VPLC. We found that the practicing school leaders' perceptions of the VPLC were positive in terms of (a) increasing convenience and professional networking, (b) supporting community building and critical reflection among school leaders, and (c) providing resources for future use. The VPLC can be regarded as a gateway to increasing the scalability of quality professional development programs for school leaders serving low-performing campuses. Our nation's school leaders can be better supported by sustained, effective VPLCs. As we work with VPLCs, we will continue

to embed reflective activities related to building school leaders' instructional leadership capacity.

According to DuFour (2004), PLCs can be the platform that instills and protects the time devoted to stakeholders' rich conversations. PLCs allow all voices to be heard and taken into consideration by using protocols, such as the L.E.A.D.E.R. model. Supporting that notion, the National School Reform Faculty (2019) defined protocols as structured processes and guidelines to promote listening and reflection through meaningful, efficient communication, problem-solving, and learning. As we noted stakeholder involvement is critical in instructional leadership and such a VPLC protocol can promote effective collaboration by holding structured conversations among educators either during stakeholder meetings and/or in the classroom, which can ultimately result in enhancing school climate and culture.

Conclusion and implications

Based on the findings of the present research on the effectiveness of VPLC L.E.A.D.E.R. for school leaders, the following five components for developing an effective high-functioning VPLC emerged upon discussion of the findings with the participants and research team. Those are as follows:

- 1. The VPLC should be well organized.
- 2. The VPLC content should create interest in topics.
- 3. The training materials via the L.E.A.D.E.R. model should:
 - a. Help to consider diverse perspectives
 - b. Provide research-evidenced-based instructional practices
- The pace of delivery and time commitment in VPLC should be considered.
- 5. Discussion and opportunities to reflect should be included in the VPLC.

Still, we must learn more about possible ways to reduce the cost of implementing sustained, effective PLCs. Perhaps, VPLCs have the potential for providing sustained implementation of traditional PLCs. It is necessary to have a clear vision of what VPLCs can offer school leaders. Finally, the processes and structures that affect the building of VPLCs, including size and composition, need further examination. VPLC outcomes may be influenced by participants' demographic variables, including their age, experience, gender, and ethnicity of community members, in addition to whether participation is voluntary or mandatory. The time and location of VPLC meetings, VPLC processes, and closure activities may affect the participants' reflection and performance. The cost of VPLC implementation, along with finding high-quality online professional learning activities remains under-explored.

To suggest a direction for future research, follow-up studies can be conducted to assess the long-term effects of VPLC. School leaders from a variety of school contexts and locations could be included in future VPLCs. It is also possible that subsequent research investigating VPLCs' effects on participants over time would highlight the need to focus more on the implementation and evaluation of these steps among different groups of leadership teams in high-needs schools.

Each school's leader demographics, instructional resources, and support levels could prove to be mitigating factors for long-term VPLC effectiveness. Research is needed to draw attention to VPLC elements that school leaders deem appropriate for their campus and help leadership teams integrate them.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Transformational educational leaders inspire school educators' commitment

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Introduction: Transformational school leaders play an important role in promoting educational innovation and restructuring by creating a vision for the future, building a culture of collaboration, and empowering others to become leaders themselves. Through their leadership style, they inspire and motivate others to work towards a common goal, leading to positive change and growth within the educational system. The aim of this study is to measure the impact of transformational leadership on various types of commitment that school teachers have in Bengaluru, India.

Methods: A survey was conducted using standardised instruments to measure the leadership style of principals and personal commitment of teachers. The data was collected from 1,173 school teachers through a questionnaire and analysed using SPSS V23 statistical software.

Results: The study found that transformational leadership had a significant impact on the different types of commitment that teachers possess in school education. The three domains of commitment - commitment towards the institution, student development, and self-development - were positively influenced by transformational leadership.

Discussion: Transformational school leaders play an important role in promoting educational innovation and restructuring by creating a vision for the future, building a culture of collaboration, and empowering others to become leaders themselves. This study provides evidence that transformational leadership has a positive impact on different types of commitment among school teachers in Bengaluru, India. Leaders of school management are advised to take into account the three domains of commitment of their teachers to facilitate organisational learning through more integrative methods.

KEYWORDS

leadership styles, personal commitment, school education, student development, self-development

Introduction

Higher education is about experiencing challenges in managing growing societal expectations regarding skills and knowledge provided. At the same time, there is a lot of competition from other educational institutions across the globe. Today's dynamic educational system encourages faculty and students to achieve higher goals. Thus, there is an increasing demand for effective educational leadership. Themes for teacher development that are significant and crucial include leadership and teachers' involvement.

Researchers have examined teachers' perceived issues, beliefs, concerns, satisfaction and "reality shock" for many years (Veenman, 1984). Reasons for conducting this type of research spans from theoretical concerns with the psychological growth of teachers (Fuller, 1969; Fuller and Brown, 1975) to practical concerns with the structure of programmes for teachers' preparation and induction (Evans, 1976). In order to effectively accomplish the school's goals by motivating and directing the latter to work willingly, the individual-leaders' process of exerting influence on other people or groups plays a crucial role. School leadership shares characteristics with leadership applied to non-educational environments. Effective schools require good administration and leadership that collaborate and support one another. In this situation, the Principal oversees and spreads innovation and change in their capacity as leaders, constantly in close communication with the faculty at the school (Zacharo et al., 2018).

According to García-Morales et al. (2008), transformational leadership affects employees' attitudes, behaviours and general organisational assumptions. Typically, transformational as well as transactional leadership are investigated side by side in studies comparing leadership styles (Bass and Avolio, 1990; Judge and Piccolo, 2004; Masa'deh et al., 2016; Xie et al., 2019). Transformational leadership brings in a professional atmosphere, in which students, faculty, coaches, and counsellors perform better and innovate in the classroom. It provides a solution to the conflict in the system and the ability to transform and respond to the evolving needs of the education system. Human capital is the principal asset of any education system. It includes the knowledge and skills of different stakeholders, such as researchers, students, faculties and staff. Teachers' involvement in their work and schools will increase because of transformational leaders' actions in classrooms (Park et al., 2016).

Idealised influence, inspirational motivation, intellectual stimulation and individualised consideration (Bass and Avolio, 1994) are the main key elements of transformational leadership. An appropriate combination of these factors may improve productivity and efficiency and lead to a knowledge-based economy, managing and developing intellectual capital within the higher education system. Acknowledging the underlying change in the education system's transformational leadership is inevitable.

A thorough literature study on the connection between leadership and commitment in the workplace was conducted by Xie et al. (2019). It concluded that transformational leadership's impact on personal commitment is rarely compared to other leadership philosophies, such as genuine leadership, ethical leadership or servant leadership after synthesising the literature. However, studying emerging styles may enhance our understanding of its impact on different types of commitment that teachers possess.

The foundation of this study is taken from the full range leadership model given by Bass and Avolio (1994). Three different leadership philosophies—transformational, transactional, and *laissez-faire*—have been identified by Bass and Avolio (1994). His original theory comprised three categories of transformational behaviour (idealised influence, intellectual stimulation, and individualised consideration) as well as two types of transactional activities. The theory has been extended with transformational behaviour called inspired motivation, as well as transactional behaviour known as active management by exception (Bass and Avolio, 2004). An inspirational drive and idealised impact define charisma in leadership. The idealised influence behaviour is made up of two parts: the idealised influence behaviour and the idealised influence attributions. Developed from the original Full Range Leadership concept

(Bass and Avolio, 1994), the nine-factor model consists of idealised influence behaviour, idealised influence attributions, inspirational motivation, intellectual stimulation, individualised consideration, contingent rewards, active management by exception, passive management by exception and *laissez-faire* (Bass et al., 2003).

Previous studies have shown that leadership styles affect the degree of organisational commitment of subordinates, which needs to be considered (Rowden, 2000; Lok and Crawford, 2004; Dale and Fox, 2008; Chen, 2021). Organisational commitment is a crucial factor in determining how employees behave at work, claim (Mowday et al., 1979). All educators should be encouraged to make a personal commitment to esteem, respect, appreciate and comprehend one another at educational institutions. "A personal commitment is unavoidable if one is to pursue change, as the process of change is rarely credible if the exponent refuses to embody that which he or she exhorts others to embrace" (Kendrick, 2001). Teachers' personal commitment is simply a collective commitment of teachers' commitment towards students' development, self-development and institutional development.

From the previous literature, it has been found that leadership styles have been studied with the organisational commitment of teachers, but there is a significant gap when it comes to different types of commitments that teachers possess in an organisation (Kendrick, 2001; Dale and Fox, 2008). The focus of this study is on conceptualisation of the transformational leadership styles of school principals, influence on commitment of teachers towards student development, self-development and institutional development. The study used a standardised questionnaire to gather data from schools to analyse the relationship between the constructs that contribute to development of better work environment for teachers towards the betterment of the self, students and institutions. More specifically, the study is motivated by the following research questions:

RQ1: Does transformational leadership style influence teacher's commitment towards self, students and institutional development?

Due to the increase in interest in studying transformational leadership styles and its relation to different commitments of teachers in an institution, the study aims to attain the following research objectives:

- To test the relationship between transformational leadership styles and teacher's commitment towards self, students and institutional development.
- To test the influence of transformational leadership styles on teachers' commitment towards the self, student and institutional development.

Review of literature

The social exchange theory and the social cognitive theory are the theoretical pillars of this investigation. The social exchange theory by Blau (1964) focuses on the exchange of resources and benefits between individuals in social interactions, where the behaviour is influenced by the expectation of recognition and rewards. The social cognitive theory by Bandura (1986) emphasizes the role of cognitive processes, such as observation and imitation, in shaping behaviour. Transformational leadership behaviours that are capsuled in social exchange theory and

social cognitive theory are likely to promote school teacher's commitment, trust, and gratitude as well as healthy social interaction and group dynamics. Employer-employee social interaction consists of a recurrent cycle of advantages and encouraging obligations to reciprocate (Coyle-Shapiro and Kessler, 2000). The social exchange theory illuminates the social relationship between principals and teachers in this study by describing how teachers behave at work. Teachers will be more receptive to change if their leaders consistently inspire and support them in their work because they understand and value the support. They will therefore increase their commitment to teaching entrepreneurship.

A cluster of educational management models was identified by Bush (2010) based on four criteria: the degree of agreement on objectives, the idea of structure, the influence of the environment, and the best leadership strategies. Her next step was to relate six models to various leadership philosophies pertaining to education. Leaders in an organisation will motivate their people to achieve their objectives and prove how far the leaders delegated their authority to develop their followers' commitment towards their organisation. Their concern in interpersonal relationships and task-oriented behaviour demonstrates their leadership style (Mescon et al., 1985). Transformative and transactional leaders are moral role models who labour for the benefit of the group, organisation, and/or community. Transforming leaders are exalted (Burns, 1978). Transformative leaders could make an effort to change organisational culture (Yuwono et al., 2022), but transactional leaders frequently do not strive for such change and instead work within the existing culture (Burns, 1978).

According to Silins et al. (2002), transformational school leaders support educational innovation and restructuring by emphasising the development of a clear vision, fostering teamwork, and elevating followers to leadership positions. Transformative leadership was described by Bass and Avolio (1990) based on the actions of their followers. Such leaders are trusted, revered, and admired by their followers. Transformational leaders are able to win people's respect and trust. They change the status quo of the organisation through motivational behaviour and create a new vision for the future (Bakti and Hartono, 2022; Lyubykh et al., 2022). In their review study on educational leadership, Agosto and Roland (2018) primarily focused on transformative educational leadership. Separate commitments to teaching have been investigated by Bredeson et al., 1983. There have been initiatives to research the various commitment levels of instructors. A transformative leader raises employees' intrinsic value in order to increase their commitment to the organisation (Khasawneh et al., 2012). According to Firestone and Rosenblum (1988), teachers may be committed to teaching, their schools, or their students, and that their behavioural patterns differ depending upon which commitments are assessed. The study also came to the conclusion that wherever the teacher is committed, that area seems to flourish. If teachers supported students' personal growth and upheld a warm and supportive learning environment, the dropout rate would decline. Yu et al. (2002) research in Hong Kong's primary schools looks at the effects of a Principals' transformational leadership methods on teachers' commitment to change. The school environment, school structure, change techniques and school culture all served as mediating factors in the research. The findings point to transformational leadership having a high significant impact on mediating factors, making modest but substantial effects on teachers' commitment to change.

The supportive and democratic communication from the school principals were strongly correlated with the job attitude of teachers, which has a positive effect on the commitment of teachers (De

Nobile and Bilgin, 2022). The principals with transformational leadership style are supportive and hardworking leaders, who motivate teachers by means of constructive criticism and support in both personal and professional lives, to direct them towards task achievement (Barnová et al., 2022). The leaders of the school often communicate the vision and mission of the organisation to the staffs of the respective organisation, to ensure that the teachers are moving towards development of the organisation (Leithwood, 2021). In order to provide development for underserved students in their schools with more equal opportunities and results, transformational leaders must recognise and resolve the gaps between the present practices and beliefs held by their staff, by motivating them for self-development (Leithwood, 2021). Staff development is a crucial strategy for administrators, who want to successfully increase the balance in their schools. It is imperative to provide employees with opportunities to gain new skills, information and attitudes they will need to successfully improve equity in schools, as doing so will need many of these (Leithwood, 2021; De Nobile and Bilgin, 2022). Teachers who can communicate effectively in two dimensions will be able to solve problems on their own and develop as a result of the atmosphere their principals have created (Vinh et al., 2022). Employees will therefore have the chance to share their knowledge and grow as individuals (Puni et al., 2018). On a regular basis, superiors give their staff members feedback on how they are doing, so that the employees' skill and knowledge development is aided by positive feedback (Leithwood, 2021; Vinh et al., 2022).

Some of the major findings from previous literature address the leadership styles influencing institutional development, selfdevelopment and student development (Leithwood, 2021; Barnová et al., 2022; De Nobile and Bilgin, 2022); dimensions of leadership styles are vital determinants in making educators dedicated to their institution (Bass and Avolio, 1990; Parveen et al., 2022). Nazari et al. (2012) suggest that transformative leaders have a significant impact on their employees and are successful in enhancing employee commitment. According to Pihie et al. (2011), transformational leaders increase employee commitment by motivating individuals to use innovation and creativity in order to thrive within the organisation. The study suggested that transformational leadership influences teachers' commitment to the school's mission and to the professional learning community in both direct and indirect ways (Ross and Gray, 2006). Leithwood and Jantzi (2000) emphasized the positive effects of transformational leadership in education. They found that transformational leadership can lead to higher levels of commitment, ability, and motivation among teachers to develop new approaches to education. There is a general consensus that everyone finds transformative leadership gratifying. In reaction to transformative leadership conduct, followers everywhere reported similar levels of heightened satisfaction and also exhibited similar tendencies in their ability to identify such behaviour in their leaders (Kouzes and Posner, 2017; Van Dierendonck et al., 2017; Caza et al., 2021). Knowing from literature that leadership styles of the principal and the commitment of teachers in different perspectives are theoretically related in school education, the study has raised and tested the hypothesis.

Hypothesis 1: Transformational leadership has a significant influence on commitment of school teachers towards self-development.

Hypothesis 2: Transformational leadership has a significant influence on commitment of school teachers towards student development.

Hypothesis 3: Transformational leadership has a significant influence on commitment of school teachers towards institutional development.

Method

Population and sampling

School teachers from government, private aided and private unaided schools in Bengaluru (urban) were included in the study. There were 6,146 schools in Bengaluru and 61,927 teachers (DISE-2010-11). A survey method was used in this exploratory study. School teachers in Bengaluru were the primary source of data collection. According to the type of school management, the population was divided into categories. Data from government teachers made up 19.9%, private aided teachers made up 33.1% and private, unaided teachers made up 47.1%. The profile of the respondents is detailed in Table 1.

Research design

The study was conducted in Bengaluru city in Karnataka, India. Convenient and stratified sampling technique was used in the study. A valid questionnaire was used to collect data, which was quantitative. The respondents across types of schools were administered the questionnaire personally by researchers. Taking part in the survey was voluntary. A total of 1,555 teachers were targeted for the study, and 1,173 teachers' data was used to sample. The study used approximately 75.43% of the questionnaires administered. A confidentiality agreement was in place for all responses. Ethical clearance to conduct the study was obtained from the Institutional review board.

Measures

The Educational leadership style scale (Kareem and Patrick, 2019) is based on how teachers view them, supervisors, principals, and coordinators are asked to define the leadership style or styles that they use the most frequently. The four elements of transformational leadership are supportive (10 items), expectant (3 items), receptive (3 items), and corrective (3 items). There are 19 items in all. The educational leadership style scale was designed in Likert-type scale of 1 (Never) to 5 (Always). The Leadership Styles scale has a 0.906 total reliability score, which indicates strong internal consistency. The reliability of the individual factors is between 0.752 to 0.892, showing acceptable reliability due to moderate to high internal consistency (Pallant, 2001).

The three elements of commitment included in the Personal Commitment Scale (Kareem and Srikantaswamy, 2014) are commitment to self-development, commitment to intuitional

TABLE 1 Sample profile.

Demographics	Categories	Count	N%
Type of board	State	948	80.8%
	ICSE	177	15.1%
	CBSE	48	4.1%
Type of school	Government	370	31.5%
	Aided	374	31.9%
	Unaided/Private	429	36.6%
Gender	Female	970	82.7%
	Male	203	17.3%
Marital status	Married	881	75.1%
	Unmarried	292	24.9%
Age	<20 Yrs	6	0.5%
	21–25 Yrs	110	9.4%
	26-30 Yrs	280	23.9%
	31-35 Yrs	149	12.7%
	36-40 Yrs	138	11.8%
	41-45 Yrs	192	16.4%
	> 46 Yrs	298	25.4%
Educational qualification	Diploma	143	12.2%
	Graduation	528	45.0%
	Post-Graduation	377	32.1%
	Others	125	10.7%
Years of teaching	<2 Yrs	122	10.4%
experience	2–5 Yrs	273	23.3%
	6-10 Yrs	262	22.3%
	11-20 Yrs	219	18.7%
	> 20 Yrs	297	25.3%

development, and commitment to student development. There are a total of 18 items: 4 items measuring the self-development, 5 items measuring the intuitional development, and 9 measuring the student development. They are all uplifting statements. The personal commitment scale was designed in Likert-type scale of 1 (strongly disagree) to 5 (strongly agree) and has an outstanding internal consistency, as indicated by its overall reliability of 0.920. The reliability of the individual factors is between 0.841 to 0.939, suggesting excellent internal consistency, which led to acceptable reliability (Pallant, 2001).

Analysis

The SPSS Statistical Software, version 23.0, was used to import the data. The model was tested in context to examine the impact of transformation leaders on commitments of school teachers. The data was screened for missing values and normality. Acceptable kurtosis values ranged from 1 to -1 for all variables (Sposito et al., 1983). The data displayed an acceptable level of skewness between 2 and -2. The reliability analysis was conducted on the instruments and it is represented by Cronbach's alpha (Creswell, 2010). The reliability

analysis of the scales is given in Table 2. According to Pallant (2001), Cronbach's alpha value above 0.6 is considered highly reliable and acceptable index (Nunnally and Bernstein, 1994). The data was subjected to t-test and ANOVA to check the differences among the demographic variable with respect to transformational leadership style and personal commitment.

To check if there are significant mean differences in perceived transformational styles across demographics ANOVA and t-tests were conducted (Table 3). There were significant differences in expectation, supportive and corrective styles across categories of State, ICSE and CBSE boards, the means of ICSE being greater. There were significant differences in expectation, supportive and corrective styles across categories of Government, Aided and Private schools, the means of private schools being greater. There were significant differences in recognition, expectation, supportive and corrective styles across categories of seven age groups, the means of 26-30 years' age group being greater. There were significant differences in recognition, and supportive styles across categories of educational qualifications, the means of Diploma holders being greater. There were significant differences in recognition, expectation, supportive and corrective styles across categories of teaching experience, the means of 2-5 years' group being greater for supportive and corrective style, the means of >20 years' group being greater for recognition style, and the means of <2 years' group being greater for expectation style. There were significant differences in recognition, expectation, supportive and corrective styles across Male and Female teachers, the means of females being greater. There were significant differences in recognition, expectation, supportive and corrective styles across Married and Unmarried teachers, the means of Unmarried teachers being greater.

To check if there are significant mean differences in personal commitment of teachers across demographics ANOVA and t-tests were conducted (Table 4). There were no significant differences in the dimensions of personal commitment across categories of State, ICSE and CBSE boards. There were significant differences in student and institutional development across categories of Government, Aided and Private schools, the means of aided schools being greater. There were significant differences in student, institutional, and self-development across categories of seven age groups, the means of >46 years' age group being greater. There were significant differences in student, institutional, and self-development across categories of educational qualification, the means of diploma holders being greater. There were significant differences in student, institutional, and self-development across categories of teaching experience, the means of

>20 years' age group being greater. There were significant differences in student, institutional, and self-development across Male and Female teachers, the means of females being greater. There were significant differences in self-development across Married and Unmarried teachers, the means of Unmarried teachers being greater.

Pearson's correlation analysis was used to determine the degree and direction of the relationship between transformational leadership styles of principals and commitment of teachers towards self-development, student development and institutional development. Multiple regression investigation was undertaken to check if transformational leadership's sub-dimensions considerably forecast the commitment of school teachers towards self-development, student development, and institutional development. Before proceeding with the multiple regression, the correlation between all variables of the study was reported (Table 2). The correlation values have satisfied the assumption that the variables were significantly correlated.

Hypothesis 1: Transformational leadership has a significant influence on the commitment of school teachers towards self-development.

The outcome of the regression analysis points to the four predictors of transformational leadership explicated (37.2%) of the variance (R^2 = 0.372, p < 0.001). Refer (Table 5, p < 0.001), which points out that the comprehensive model is forecasting the commitment of teachers towards self-development. It is found that Transformational Leadership's sub-dimensions: Corrective (t (1172) = -2.673, p > 0.05), Recognition (t (1172) = 2.819, p < 0.01), Expectation (t (1172) = 7.445, t < 0.05) and Supportive (t (1172) = 6.045, t < 0.01) forecast the commitment of teachers towards self-development. Hypothesis 1 is accepted and hence transformational leadership's sub-dimensions do significantly influence the commitment of school teachers towards self-development.

Hypothesis 2: Transformational leadership has a significant influence on the commitment of school teachers towards student development.

The outcome of the regression points to the four predictors of transformational leadership explicated (33.4%) of the variance (R^2 =0.334, p<0.001). Refer (Table 6, p<0.001), which points out that the comprehensive model is forecasting commitment of teachers towards student-development. It is found that Transformational

TABLE 2 Cronbach's alpha, and Pearson's coefficient of correlation.

	Corr	Recog	Expec	Supp	Student	Institutional	Self
Corrective (Corr)	_						
Recognition (Recog)	0.306ª	-					
Expectation (Expec)	0.325ª	0.486ª	-				
Supportive (Supp)	0.443ª	0.650ª	0.527ª	-			
Student	0.153ª	0.386ª	0.384ª	0.440ª	_		
Institutional	0.246ª	0.421ª	0.366ª	0.562ª	0.592ª	-	
Self	0.229ª	0.456ª	0.472ª	0.535ª	0.691ª	0.602ª	-
Cronbach's Alpha	0.813	0.752	0.892	0.853	0.932	0.939	0.841

^aCorrelation is significant at the 0.01 level (2-tailed).

TABLE 3 ANOVA and t-test results of transformational leadership styles.

Demograph	nic variable	t value	F value
Type of board	Transformational – Recognition		0.821
	Transformational – Expectation		5.972ª
	Transformational – Supportive		4.097 ^b
	Transformational - Corrective		3.911 ^b
Type of school	Transformational – Recognition		2.115
	Transformational - Expectation		15.716ª
	Transformational – Supportive		4.105 ^b
	Transformational - Corrective		7.148ª
Age	Transformational - Recognition		6.254ª
	Transformational – Expectation		4.755ª
	Transformational – Supportive		8.532ª
	Transformational - Corrective		10.265ª
Educational	Transformational - Recognition		6.719ª
qualification	Transformational – Expectation		0.018
	Transformational – Supportive		3.989ª
	Transformational - Corrective		2.534
Teaching	Transformational – Recognition		10.503ª
experience	Transformational – Expectation		12.417ª
	Transformational – Supportive		13.688ª
	Transformational - Corrective		17.965ª
Gender	Transformational – Recognition	8.449ª	
	Transformational – Expectation	7.178ª	
	Transformational – Supportive	9.933ª	
	Transformational - Corrective	5.473ª	
Marital status	Transformational – Recognition	-3.092ª	
	Transformational - Expectation	-5.546ª	
	Transformational – Supportive	-5.906ª	
	Transformational - Corrective	-7.288ª	

^aSignificant at the 0.01 level.

Leadership's sub-dimensions: Corrective (t (1172) = -2.695, p < 0.01), Recognition (t (1172) = 3.696, p < 0.01), Expectation (t (1172) = 6.288, p < 0.05) and; Supportive (t (1172) = 7.806, p < 0.01) forecast the commitment of teachers towards student-development. Hypothesis 2 is accepted and hence transformational leadership's sub-dimensions do significantly influence the commitment of school teachers towards student-development.

Hypothesis 3: Transformational leadership has a significant influence on the commitment of school teachers towards institutional development.

The outcome of the regression points to the four predictors of transformational leadership explicated (32.6%) of the variance (R^2 =0.326, p<0.001). Refer (Table 7, p<0.001), which points out that the comprehensive model is forecasting the commitment of teachers towards institutional development. It is found that Transformational Leadership's sub-dimensions: Corrective (t (1172) = -0.560, p>0.05),

TABLE 4 ANOVA and t-test results of Personal commitment of teachers.

Demographi	c variable	t value	F value
Type of board	Student development		1.185
	Institutional development		1.738
	Self-development		2.321
Type of school	Student development		12.745ª
	Institutional development		22.316ª
	Self-development		0.368
Age	Student development		17.621ª
	Institutional development		12.566ª
	Self-development		11.723ª
Educational	Student development		10.481ª
qualification	Institutional development		19.950ª
	Self-development		4.430ª
Teaching	Student development		34.247ª
experience	Institutional development		26.400ª
	Self-development		15.825ª
Gender	Student development	10.779ª	
	Institutional development	12.629ª	
	Self-development	9.419ª	
Marital status	Student development	1.169	
	Institutional development	0.016	
	Self-development	-5.919ª	

^aSignificant at the 0.01 level.

Recognition (t(1172) = 2.348, p < 0.05), Expectation (t(1172) = 2.878, p < 0.05) and Supportive (t(1172) = 13.652, p < 0.01) forecast the commitment of teachers towards institutional-development. Hypothesis 3 is accepted and hence transformational leadership's sub-dimensions do significantly influence the commitment of school teachers toward institutional development.

Discussions and implications

It is important to acknowledge that, while there was large sample, the participants represent a small fraction of all school teachers in India. It is also worth noting the limitations of quantitative studies based on self-reporting surveys and absence of qualitative data to explain relationships. Nevertheless, the study explored commitment of school teachers using a comprehensive set of variables such as self, student and institutional development, the likes of which have not been attempted previously.

The results showed that majority of the demographic variables show significant differences among the variables of transformational leadership styles. The transformational leadership style of school principals creates differences irrespective of their board, type of management, age, experience, gender and marital status of the teacher. The recognition does not differ among the type of board and school management, which shows teachers in both public and private schools irrespective of their boards are recognised equally by their principals, respectively. In case of commitment of school teachers, the

bSignificant at the 0.05 level (2-tailed).

TABLE 5 Descriptive statistics, model summary, analysis of variance (ANOVA) and coefficient values of transformational leadership style (TLS) and its influence on teacher's commitment towards self-development (self).

		TLS	Sup	Corr	Recog	Expec	Self
	Mean	2.86	2.96	2.71	2.99	2.81	11.33
	SD	0.81	0.78	0.74	0.85	0.87	3.17
Model summary	R^2	0.372					
ANOVA	F	138.39**					
Coefficient	β		0.961	-0.304	0.334	0.775	
	T		6.045**	-2.673	2.819**	7.445**	

The authors.

TABLE 6 Descriptive statistics, model summary, Analysis of variance (ANOVA) and COEFFICIENT values of transformational leadership style (TLS) and its influence on teacher's commitment towards student-development (student).

		TLS	Sup	Corr	Recog	Expec	Student
	Mean	2.86					27.44
	SD	0.81					6.772
Model summary	R ²	0.334					
ANOVA	F	117.11**					
coefficient	β		0.637	-1.242	0.411	0.775	
	t		7.806**	-2.695**	3.696**	6.288**	

The authors.

TABLE 7 Descriptive statistics, model summary, analysis of variance (ANOVA) and coefficient values of transformational leadership style (TLS) and its influence on teacher's commitment towards institutional development (Institution).

		TLS	Sup	Corr	Recog	Expec	Institution
	Mean	2.86					13.47
	SD	0.81					3.80
Model Summary	R^2	0.371					
ANOVA	F	137.498**					
Coefficient	β		0.637	-1.242	0.411	0.775	
	t		13.652**	-0.560	2.348**	2.878**	

The authors.

demographic variables show significant differences among the commitment variables such as self, student and institution development but the type of board does not show any significant differences. The commitment of school teachers remains unbiased irrespective of the board they work.

The school management or principals who possess transformational leadership styles do significantly influence the commitment of teachers towards self-development, student development and institutional development, but the corrective sub-dimension of transformational leadership is found insignificant in terms of self and institutional development. Teachers in school education expect autonomy in their jobs, as they expect their bosses not to intervene in terms of correcting mistakes, addressing complaints and resolving conflicts in their interests and commitment towards institutional and self-development. But when it comes to student development, the interventions from their bosses are considered significant. Individualised attention is crucial for both

productivity and teachers' contentment with the principal (Bass and Avolio, 1994). In order to aid teachers in excelling at their tasks, the principal would support, encourage and empower them. Such a principal opens up fresh learning chances and raises the potential of their followers one step at a time (Bass et al., 2003). Transformational leaders encourage their followers to do more than the expected (Bass and Avolio, 1994; Guarana and Avolio, 2022). Principals of school can accomplish this in a number of ways: first, by educating teachers on the significance and value of task goals; second, by motivating them to put the organisation's needs ahead of their own; and third, by encouraging them to raise their high-level demands.

According to Owen et al. (2004) and Özaralli (2003), principals with transformational leadership styles recognise and cultivate shared values, empower others and persuade teachers to create more work overall, not just better quality work. They also encourage teachers to use their creativity to solve problems (Limsila and Ogunlana, 2008). It must be remembered that transformational leadership emphasizes

^{**} Denotes significance at 01 level; Sup-Supportive; Corr-Corrective; Recog-Recognition; Expec-Expectation.

^{**} Denotes significance at 01 level; Sup-Supportive; Corr-Corrective; Recog-Recognition; Expec-Expectation.

^{**} Denotes significance at 01 level; Sup-Supportive; Corr-Corrective; Recog-Recognition; Expec-Expectation.

a leader's capacity for transformation. It involves transforming people by boosting their enthusiasm, solidifying their commitment, and giving them the tools they need to accomplish corporate goals (Yukl, 2010). Principals put the institution first and motivate followers to work toward those aims. They persuade followers to prioritise the interests of the group over their own (Lussier and Achua, 2007). They are able to motivate others to take challenges at work at their desire and grab opportunities to accomplish goals at a greater level (Yukl, 2010; Guarana and Avolio, 2022). A leader with inspirational motivation is thought to have high expectations for their followers. Such principals with leadership styles encourage and inspire their teachers by articulating a clear vision, coordinating professional and personal objectives, and viewing challenges as teaching opportunities (Gill, 2006). By giving their work purpose and challenge, this kind of leader also lifts their followers' spirits and inspires them to picture appealing future situations (Bass et al., 2003). They help teachers become more cooperative and motivate them to work harder than they would if they were only thinking about themselves (Northouse, 2022; Parveen et al., 2022). To boost organisational performance, leaders anticipate greater job commitment from staff members towards self and student development as well as the production of high-calibre work.

From the study, it is understood that the guidance from the principals is found to be significant when it involves students' stake, because by offering instructions on communicating corrective measures and suggestions in institutions, settings, oneself and others, transformational management strategies transform teachers and school systems to develop the welfare of the students. A leader who transforms lives motivates others to achieve unexpected or amazing results (Yasmin et al., 2019). Teachers do not expect or consider the same amount of guidance or measures from their principals when it comes to developing their own self and their school. This finding from our study stands consistent with Yasmin et al. (2019), saying that the transformational leadership style will have less or no impact on the performance of the teachers.

The focus of school principals possessing transformational leadership style is on involving the workforce by recognising and supporting their teachers. Rather than being a single, domineering person, the leader of the organisation allows his subordinates to participate in decision-making by outlining the numerous academic obligations or coursework that must be completed and how it can be successfully completed with the combined consent and assistance of all employees. The teachers' participation is the most effective approach to encourage them to take on the institution's many tasks and to provide them with a variety of options and choices, not because the management is ineffective, but to recognise their contribution to the teachers by supporting them in both personal and professional levels. It is also proved from our study, supporting the arguments from Saleem et al. (2020) and Lee et al. (2018).

Transformational recognition is a leader who recognises others' accomplishments and engages in developing others' potential; mostly in a moral and ethical manner (Saputra, 2022). Employees may feel compelled to be loyal to their employers when they realise how much money those employers have invested in their professional development and training, according to Colquitt et al. (2010). Teachers feel bad about leaving the institutions because of this commitment. Similar to how teachers feel when their institutions participate in humanitarian endeavours, they become more dedicated to the advancement of their institutions. According to Fornes et al. (2008),

congruency, fascinating work, clarity of purpose, equity and fairness, feedback and acknowledgment, empowerment, and autonomy are all preconditions for workplace commitment. Likewise, teachers who get recognised by the principals of the institution will be highly motivated, with aligned interest accordingly to the organisation, which will have expressed commitment towards the development of their own self, students and the institution as well.

Conclusion

The need for strong principal leadership and dedicated teachers is suggested by the evolving nature of schooling in order to meet the demands placed on academic institutions. Therefore, it is vital for school boards to look into the efficiency of leadership as well as the level of commitment among instructors, given the many changes and reforms in school education across many countries. Numerous research studies on the commitment of teachers and the leadership style used in schools have addressed the problems with Indian school systems. There have not been many studies on this subject done in Asia. There has also been little research on the leadership qualities and commitment of teachers in school-based institutions.

This research has investigated the effect of leadership styles of the school principal and various commitments of teachers on students, self and institutions. We have built on earlier research that mainly concentrated on evaluating the impact independently in several investigations. The study directly affects how leadership development plans are created. The study was conducted with regard to school instructors in Bengaluru, an Indian city. It would be intriguing to observe how dedication and leadership perform in different situations. What functions do leadership and dedication serve to advance higher education in other nations or in different fields? What impact does the type of academic education have on the elements that encourage advancement? The creation of leadership programmes across all education management boards would be significantly impacted by this kind of research.

Limitations and scope for future research

This study was conducted among teachers of Bengaluru schools. While the data represents the population well, the narrow focus of the population makes the results difficult to generalise. It is important to use caution when generalising the results to other educational institutions, such as colleges and schools, particularly in states with very different educational systems. The use of self-reporting and possible problems with the wording and order of the questions remains a limitation of this study, as is the case in much social science research (Podsakoff et al., 2003). As another potential source of common method bias in this research, teachers' information was used both for the independent and dependent variables.

The study identified a number of promising directions for future investigation. Since the findings show that leadership styles of the principal encourages advancement in commitment towards self, student and institutional development, more extensive qualitative investigations are required to evaluate effective leadership practice techniques. To determine how various student groups could be supported more effectively, more research on the time and resource

commitments of teachers is required. Further consideration is needed for the somewhat troubling complementing impact of remedial actions implemented by principals on teachers' commitment to students' growth. In-depth, qualitative investigations could be used to explore all these concepts. Furthermore, to examine the interaction between management support and teachers' own commitment to the organisation and pupils, longitudinal studies on the dynamics of school teachers' career trajectories during ongoing professional advancement are required.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving human participants were reviewed and approved by Research conduct and ethics committee Christ University. The patients/participants provided their written informed consent to participate in this study.

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Author contributions

JK and HP contributed to conception and design of the study. JK, HP, and NP organized the database. JK and NP performed the statistical analysis. JK, HP, NP, VB, VT, UM, and PM wrote sections of the manuscript. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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"There wasn't a guidebook for this": caring leadership during crisis

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Introduction: In this study, we seek to add to the descriptive literature on caring leadership through an examination of the work principals did to guide school communities through the COVID-19 pandemic. In this time, one essential role they played was as caretaker for all; not simply deciding, advising, or providing resources but responding with advocacy and compassion. Even so, they simultaneously had to consider traditional instructional leadership expectations including teacher observation and supervision as well as student evaluation.

Methods: This study examines the acts and expressions of caring leadership. Our research responds to one overarching question: What does caring leadership look like in action? Through close examination of 17 elementary principals' recollections of work during the school closures of 2020, this study highlights the elements of their decisions and choices that embodied caring leadership as well as demonstrates how these moves both incorporated and exceeded traditional leadership work.

Results: Our findings highlight the centrality of caring leadership not merely as part of leaders' work, but as the actual work itself. We extend a presumed tautology of caring leadership to explicate the discrete tasks undertaken by caring leaders to sustain the work of schools.

Discussion: Research on leadership practices frequently emphasizes professional work as relational and interactive to achieve instructional goals without acknowledging that much of the contemporary leadership work both centers on and draws strength from mutual, authentic caring for others to accomplish work. Thus, this investigation enhances research on leadership in education to recognize the caring work that principals perform and the value they ascribe to caring.

KEYWORDS

leadership, principal, leadership theory, crisis leadership, school leadership, caring leadership, pandemic leadership

Introduction

Caring is critical to successful schooling and school leadership (Smylie et al., 2016). Caring matters because it functions as a positive, protective force in the formation of social life, but in schooling, caring fosters both student academic success and well-being (Smylie et al., 2020). Caring leaders understand the foundational importance of caring for others; they recognize the "intrinsic interests" of their community and "try to protect them" (Noddings, 2006, p. 343). Competent caring leadership aims to achieve holistic benefits for students such as engagement, social integration, positive feelings of support, increased capacity for achieving goals, and the ability to reproduce caring (Smylie et al., 2020). Even so, while research on the importance of strong instructional leadership remains dominant in the literature (Neumerski, 2013; Grissom

et al., 2021), less attention has been given to caring as a function of instructional leadership, perhaps in part due to the demand for growth and achievement over an explicit focus on the changing needs of students and teachers. At times, teachers report that a tight focus on student achievement directs both time and attention away from forming caring relationships with students and other educators (Smylie et al., 2016, 2020). While theoretical work asserts caring as the foundation for ethical decision-making (Noddings, 2013), little research has described what caring leadership looks like in action.

There are also discrepancies between how schools enact care and the extent to which their institutions are experienced as caring (Mehta and Fine, 2020). Contemporary American schools are organized to provide care, supporting students with safe spaces, material resources, and extracurricular activities, but research casts doubt on whether schools are felt to be caring by their constituents (McHugh et al., 2013; Bonanno et al., 2023; Carroll et al., 2023). Work on school climate documents the ways in which schools fail to support student well-being, particularly students belonging to minoritized social groups or marginalized identities (Valenzuela, 1999; Antrop-González and De Jesús, 2006; Khalifa, 2018). Because schools serve particularly situated communities, they can function as sites of oppression, reproducing harms that historical structures have set in motion (Khalifa, 2018). Khalifa (2018) argues that educators must confront oppression with leadership that is empowering and humanizing, challenging principals to look beyond the school and center community perspectives. Mehta and Datnow (2020) similarly critique how uncaring schools disconnect students from their community-based capital by offering "stratified and dehumanizing spaces" (p. 495). They call for new work on school organization that expands on their potential as responsive, humanizing institutions.

Most recently, the COVID-19 pandemic highlighted the potential for schools to transform the supportive relations between educators and the educated, underscoring the centrality of caring leadership. When American schools closed in response to the COVID-19 public health crisis, principals adopted newly intensified roles as community caregivers and architects of school culture while working to maintain connections with students, teachers, and families (Anderson et al., 2020). Amidst ongoing uncertainty, they bridged interacting roles of caring leadership and instructional leadership to keep the positive relations of schooling going, asserting the organization of school as an important "hub of the community" (p. 4).

In this study, we seek to add to the descriptive literature on caring leadership through an examination of the work principals did to guide school communities through the COVID-19 pandemic in its earliest days. Because students and staff were separated during closure and resorted to novel methods to keep schooling at least minimally intact, principals became the connection linking organizational guidance, decision-making, and physical and psychological safety (Weiner et al., 2021; Kaul et al., 2022). In this time, one essential role they played was as caretaker for all; not simply deciding, advising, or providing resources but responding with advocacy and compassion (Anderson et al., 2020).

This study examines the acts and expressions of caring leadership. Our research responds to one overarching question: What does caring leadership look like in action? Through close examination of principals' recollections of work during the school closures of 2020, this study highlights the elements of their motivation and decisions that embodied caring leadership and demonstrates how these moves both incorporated and exceeded traditional leadership work by trying

to provide for students without the typical resources and place-based interactions of school.

This study emerges from a national exploration at the Consortium for Policy Research in Education of leadership in crisis (Consortium for Policy and Research in Education, 2022). The Leading in Crisis larger study included interviews with 120 principals in 19 states in the United States. Here, we draw on a subset of interviews with 17 elementary level principals in 14 states.

Review of the literature

Caring leadership concerns how school leaders model and provide care to support the growth of their organization, addressing the needs of teachers and students in order to create a positive environment and motivate learning (Noddings, 2006; Louis et al., 2016; Smylie et al., 2016, 2020; Ryu et al., 2022; Bonanno et al., 2023). Caring-the process of helping another grow and being attentive to their interests is the foundation to positive interactions and relationship growth (Noddings, 2006, 2013). Caring is also rooted in the practices of service to and for others as a professional occupation; the work of pastoral care, nursing care, and disability services addresses personal needs and concerns while it promotes well-being, communal caring, health, empowerment, and autonomy (Smylie et al., 2016). Although the concept of care is multidimensional, consisting of emotion, action, identity, and commitment, caring leadership synthesizes the purpose of care for students by attending to both the social ideals and instructional aims of schooling (Noddings, 2006; Louis et al., 2016; Smylie et al., 2016; Ryu et al., 2022). Whether caring is engaged to support who students are and the concerns they have in the moment versus moving students toward academic achievement and a desired future poses a complex task for leadership, because students may receive different messages about what care is and what teachers value (Antrop-González and De Jesús, 2006; Walls et al., 2021). Furthermore, the support students receive as care at the high school level differs from the support that younger children may expect at the elementary level (Ellerbrock, 2012; Weissbourd and Jones, 2014b). However, even at the secondary level, students labeled teachers that related like a friend, like family, or like a parent as the most trusting relationships (Antrop-González and De Jesús, 2006). Caring leadership must therefore seek to satisfy multiple aims on behalf of children and educators, incorporating a moral purpose to helping students and expanding interpersonal relationships to enact community (Noddings, 2006).

Caring leaders are not satisfied with practicing only what works; they balance the interests of the people they lead with their aims for the organization and model care by listening, asking questions, and leading discussions; inviting participation and experimentation; and fostering intellectual excitement (Noddings, 2006; Ryu et al., 2022). However, caring does not consist of acts alone, and its power does not rest on authority, contractual obligation, coercion, or expectation of return—it is motivated by concern for and service to others (Smylie et al., 2016). While early conceptions of caring leadership describe it as a relational property, an extension of the work of the caring teacher and their individual, supportive relationships (Noddings, 2006), more recent conceptions of caring leadership move beyond a property of relations, to who perceives care and how it is shared as a property of the organizational culture (Walls et al., 2021; Bonanno et al., 2023).

However, there is little consensus on the core features of leadership that engender this culture (Ryu et al., 2022). Walls et al. (2021) connect caring leadership to mean more than trusting relations by attending to how students conceptualize belonging. They particularly observe which organizational practices foster student engagement and the multiple layers of relationships and spaces where caring occurs within schools. For example, collaborative work by staff to practice small routines—friendly interaction in hallways, adult greetings at school entrances—supported student belonging as a daily experience.

As Smylie et al. (2016) caution, caring production is often ignored as a leadership skill and capacity because it is assumed to spontaneously exist between adults and students within schools. When time and attention are focused on the instructional core, teaching around caring and concern is subsumed by the explicit value, achievement. The connection between authentic caring and instructional leadership intersects in research around the creation of a positive school climate (Tichnor-Wagner and Allen, 2016). For example, caring school leaders use critical methods to employ a specific political consciousness for leading with anti-racism and ameliorating social injustice (Rivera-McCutchen, 2021). This leadership suggests that caring should be culturally responsive, specific to student populations and culture (Khalifa, 2018); in this vein, leaders' goals for organizational improvement stem from their own caring stance regarding justice for their students (Tillman, 2004; Khalifa, 2012; Wilson, 2016; Bass and Alston, 2018; Irby et al., 2020; Rivera-McCutchen, 2021).

Critical caring handles the tension between instructional aims and caring by raising the value of authentic caring over esthetic caring (Valenzuela, 1999) and emphasizing the role of students' home contexts and community capital (Bonanno et al., 2023). Noddings (2013) describes esthetic care as limited to a feeling virtue, abstract, a caring about, in contrast to the relation caring for, which attends to a bond in which caring is recognized, felt, and acknowledged. Esthetic caring can be harmful and subtractive, by limiting concern to student performance, whereas authentic caring involves caring for student interests with warm, encouraging relationships (Rivera-McCutchen, 2021). These relationships not only create compassionate trust but also actively acknowledge school structures and routines' capacity to inflict harm without the guidance of spiritual, moral, or empathetic leadership (Witherspoon and Arnold, 2010). When culturally and community grounded, authentic caring can work toward a more connected organizational process of positioning educators as co-advocates who promote social trust (Bonanno et al., 2023).

Studies on school climate and organizational improvement indicate that caring leadership can influence the character of the whole school (Astor et al., 2009; Kudlats and Brown, 2021; Rivera-McCutchen, 2021; Ryu et al., 2022). One crucial aspect of caring leadership is that the social connection provided via caring leadership has proven more effective in improving school climate than research-designed, evidence-based interventions (Astor et al., 2009). Recent work by Ryu et al. (2022, p. 599) confirms the way that caring leadership becomes successful "lies in a leader's relational competency and genuine caring behaviors;" how leaders activate caring with individuals "allows teachers to observe how their school leaders care for themselves, interact with students, and respond to their expressed needs and concerns." Relational caring moves beyond the dyadic when, like notions of radical, critical, or community care, it becomes public, and visible. When caring exerts positive influence, it identifies

what is desirable and demonstrates active strategies for support to all members of the organization. Caring leadership widens the circle of concern by creating the expectation that all students belong to a community to which they also have a responsibility to demonstrate ethical care, to reach out to each other, particularly to isolated or struggling students (Weissbourd and Jones, 2014a). Weissbourd and Jones (2014a) assert that while educators create and model social norms of caring and concern, students are the ones positioned in schools to change norms. Particularly in middle and high school, students have inside knowledge of social dynamics, and they have more leverage with their peers than adults.

However, current trends in curriculum and pressing anxiety about the increased need for mental health supports have evolved into the direct teaching of social and emotional learning (SEL) for affective change (Kennedy, 2019). This positions adults as the authorities on social competencies that may obscure the obligation of students and the unique perspective that their experiences form. It also becomes a new responsibility that schools might find expensive or burdensome. Kennedy (2019) suggests that affective reforms like SEL require different "resources, time, expertise, and leadership" than instructional reforms and pose the additional task of transforming theory into practice without explicit training (p. 474). Reform-minded implementation of social emotional learning risks becoming another audit culture or version of aesthetic care without the presence of caring leadership. It also risks overlooking the foundational environment of caring leadership and the enabling conditions that would sustain social support by first ensuring teachers are supported by models of care and staff experts in SEL, like school psychologists and social workers. Teachers must also be enabled to develop their caring competencies.

It is not clear that school organizations have the resources and information they need to implement SEL as caring. Weissbourd and Jones (2014a) suggest that schools regularly survey students and staff whether they experience caring and inclusion. What is clear is that principals describe the mental health needs of both teachers and students as an evolving challenge that is stressful and time-consuming (Reid, 2021). Leaders express doubt about supporting mental health, because their preparation focuses on analyzing student data and staff performance without training around social and mental health as they work harder on "making sense of these complex and delicate situations" (Reid, 2021, p. 259). This literature indicates that organizational cultures that want to balance caring, positive climates with strong instructional leadership find it immensely challenging to do so now because of these prevalent social conditions. Caring leadership offers a potential way that educators might bridge student social and academic support.

Louis et al. (2016) measure caring leadership by focusing on how leaders understand the individual needs of teachers and are motivated to act on behalf of everyone in their organization. They maintain that academic support reflects a "particular kind of caring" for students by allocating support to those most in need of it. In this way, caring is not defined only by an increase of caring actions but an effort to distribute critical resources in such a way that it reaches those most in need (p. 334). Caring leaders are cognizant that caring is always at play—every action and interaction can take on qualities of caring or not caring. In this framework, caring uses attentiveness and professional motivation to meet their teachers' and students' explicit needs and discover implicit needs. Caring becomes authentic when leadership

engages with positivity and energy that children can receive; it is open, genuine, meaningful, affirmative, and playful.

The caring leadership enacted during such an evolving, indeterminate context as the school closures of 2020 suggests that learning cannot proceed without the foundation of a caring school culture. During 2020, leading with care involved meeting students' and teachers' inferred and expressed needs without the proximate social relationships or physical structure of the organization. To better understand this concept, this study employs the framework of caring leadership developed by Smylie et al. (2016) and Louis et al. (2016) to examine the dynamic acts school leaders used to maintain caring. In this framework, caring leadership rests on social relationships as the foundation for a connected, responsive school community. To cultivate a caring school environment, the principalship must become centered around the ethic of care. Caring is embodied in and cultivated by school leadership as an ethic, comprising the aims, mindsets, and competencies of care. In this ethic, leaders recognize the value of every individual member of the community and desire to foster a place where all persons may flourish.

Caring leadership cultivates its ethic using the following (Louis et al., 2016) elements:

- 1. Attentiveness as understanding grounded in empathy.
- 2. Motivational displacement as prioritizing other's needs.
- 3. *Situationality* as adaptive and responsive to variable and particular conditions.
- Mutuality as the assumption of flexible roles and cooperative responsibility.
- 5. Authenticity as openness, transparency, and meaningful attention.

The model of Smylie et al. (2016, pp. 17-18) asserts that leadership becomes caring in the "matter, manner, and motivation of its practice." Any action may be done with caring, beyond social interactions, to encompass the organizational goals via "a wide range of tasks that can be filtered through a lens of caring." Building from the core elements, leaders may structure caring in their school community around the following practices: developing the capacity for caring in others, shaping proximal social relationships and school conditions to make caring explicit, and promoting a shared meaning of caring as a primary quality of the organization. A leader may pursue capacity via teaching and guiding, positive modeling, and promoting the experience of caring. They might also build capacity by engaging supportive structures beyond the school to foster and strengthen the acts and relations of caring. These webs involve drawing on relationships with families as well as community organizations to gain important sources of understanding about student needs. This coupling action may strengthen the caring that students receive and help schools identify weaknesses in community networks of care by becoming receptive to familial or cultural orientations that the community wants reflected in the school organization. A network perspective also acknowledges that the individual leaders may not always be best positioned or suited to cultivate meaningful relationships of care with every member of the organization (Bonanno et al., 2023).

In typical times, these caring actions occur through proximal social relationships and attention to the social architecture of the organization. In this study, such relationships and architecture were absent. Leaders worked with an ethic of concern by using their knowledge of individual student-family situations and needs and by positioning themselves through relationships and intensive outreach to receive and discover information they could act on. This work adds to the concept of caring leadership by detailing its expression through the relational and organizational actions, interactions, and practices during an evolving crisis context. Our findings indicate that leaders' actions demonstrate a highly motivated and expansive caring capacity—one that was very much present prior to March 2020 but also grew because of ongoing challenges.

Methodology

This qualitative study of principals' leadership during the COVID-19 crisis draws on interviews with a nationwide sample of school principals across the United States. The findings come from the study led by Dr. Jon Supovitz and based at the Consortium for Policy Research in Education at the University of Pennsylvania. In this paper, we limited participants to school leaders at the elementary or middle level based on the assumption that leaders at these levels have wider engagement with teachers as these levels are typically not departmentalized. We further limited participants to those who had at least 3 years in their current building based on the assumption that these leaders would have had ample time to build relationships and create both formal and informal communities in their schools, unlike principals who were newer to the role and to the particular context (Table 1).

The interview format limited the data to descriptions of school shutdown and health risks to students and teachers. In 45-min interviews conducted on Zoom, leaders were asked about the timing and logistics of closure, pressing issues, their support work to students (including food aid), their communication methods, support work to

TABLE 1 Study participants.

Pseudonym	State	Gender
Alex	New Jersey	Male
Anna	Colorado	Female
Belinda	Minnesota	Female
Bess	California	Female
Bill	Tennessee	Male
Briana	New York	Female
Chris	Colorado	Male
Edward	California	Male
Elias	Florida	Male
Jada	Virginia	Female
John	Minnesota	Male
Julie	Colorado	Female
Kerri	Maryland	Female
Kevin	Massachusetts	Male
Logan	Pennsylvania	Male
Rachel	Delaware	Female
Sarah	Connecticut	Female

teachers, and their support for self. Sunstein and Chiseri-Strater (2012) recommend qualitative researchers continually ask themselves what surprised, intrigued, or disturbed. In doing analysis on these data for a study of leader relationships during closure (Stone-Johnson et al., 2023), we were surprised by the prevalence of affective voice of the leaders' statements in expressing concern for others: fear, stress, and worry; and we were intrigued by the intensity with which individual leaders worked to reduce harm. Guided by the concept of "caregiver for all" coined by Anderson et al. (2020) in working with a different subset of the Leading in Crisis data, we then asked: What does it mean for leaders to work as caregivers for all? How was care work embraced or performed? To answer this question, we each coded the transcripts deductively for expressions of and acts of care. Using this shared dataset of 26, we coded until reaching saturation = this was 17. As we progressed, we compared and discussed codes and noted whether caring was directed individually, collectively, toward students, staff, families, or self. In the second round of coding, we used analytic memo writing (Saldaña, 2016) to reflect and generate categories, which enabled us to organize themes centered on responsiveness, social concern, navigating inequality, and shared morale. During the final coding process, we wrote memos to relate the categories to concepts from the literature on caring leadership. Finally, we grouped strategies descriptively into areas centered on attentiveness, motivational displacement, situationality, mutuality, and authenticity (Louis et al., 2016). We chose these competencies of caring relationships to focus on leadership practices as work. We could closely examine what leaders as individuals displayed without information on enabling or antecedent conditions like trust or continuity, or particular information on the organizational conditions in their schools.

Sample

The full sample of principals from which this study draws included 120 participants from across the nation. The sample was purposively selected through researchers' networks; this choice was made due to the immediacy of the crisis and the researchers' attempts to not burden leaders at that time. Fifty-two of the 120 schools (43%) were classified by the National Center on Education Statistics (NCES) as suburban; 47 of the schools (39%) were located in cities; 16 of the schools (13%) were rural; and five schools (4%) were located in towns. Twenty-two of the schools (18% of the sample) were located in four western states (CA, CO, MT, and ND); 12 schools (10% of the sample) were from three central states (MN, OH, and OK); 34 of the schools (28% of the sample) were from five southern states (VA, FL, GA, TN, and TX); and the remaining 52 schools (43% of the sample) were from seven eastern states (CT, DE, MA, MD, NJ, NY, and PA). Fifty-seven of the study schools (48%) were majority white; 23 of the schools (19%) were majority Hispanic; 19 of the schools (16%) were majority Black, and three of the study schools were predominantly American Indian. On average, about 52% of students in schools in the sample qualified for free or reduced-price lunch. Principals averaged just over 8 years of experience as a principal, which ranged from 1 to 19 years. Seventy-one (71%) were white; 20 (18%) were Black; and 7 (6%) were American Indian. Sixty percent of the sample were women. From this larger sample, we selected a total of 17 principals. We limited participants to individuals working at the elementary level who had a minimum of 3 years working in their current school. The choice of 3 years was made to ensure that only leaders who had previous experience in the building prior to COVID-19 would be selected. The choice to limit the sample to elementary principals was based on leaders' proximity to teachers and students; at the secondary level, leadership is frequently distributed through department chairs and other forms of teacher leadership.

Limitations

The larger study from which this study emerged sought to understand the COVID-19 event itself and the ethical decision-making of leadership through crisis. The interviews were only with principals and not with other stakeholders. We do not have evidence from students or staff that principals' acts were received as caring. The sample in this study includes only leaders at the elementary school level; further research on how caring leadership manifests at the secondary level is needed. Finally, these interviews are a moment-intime snapshot of leaders' experiences, responses, and adaptations in crisis. Interviews were conducted in July 2020, during ongoing risk to student and community health and uncertainty amidst fall reopening plans.

Findings

Principals acted as caring leaders by working to understand the needs of families and teachers, pursuing connection to respond with resources, answers, or emotional support. It is important to note that they engaged in this work above and beyond their typical leadership duties, although many of these duties were sidelined temporarily in the earliest days. Following Louis et al. (2016), we organize our findings around the thematic elements of caring leadership: attentiveness, motivational displacement, situationality, mutuality, and authenticity. Overall, leaders' actions converged around the way they positioned themselves to do the work and how relentlessly they prioritized caring, identifying shared priorities and performing the same role, if addressing them in varied ways depending on the particular community's location, advantage, or disadvantage. What follows is an exploration of what leaders did to recognize need, manage the emotions and experiences of precarity, and reduce harm for school communities-the embodiment of caring leadership. Within each element, we highlight thematic findings that elucidate a finer grained picture of caring leadership.

Attentiveness

As caring leaders, principals collected stories of need, acknowledging concern and articulating how their communities were affected. Even in July, leaders had identified that children's social, emotional, and mental health were at risk and that they had limited tools to foster connection. This work came through in their communication strategies and their identification of their priorities moving forward for "being in community" with children. Leaders thought communicating care was so important they began this work without guidance in the early weeks, by setting up systems for

checking in with families, or recording and posting supportive videos and content for children.

The priorities for connection and social emotional or mental health were repeatedly emphasized as major concerns by each leader, who at this time were serving school communities with uncertainty about disease spread and fall schooling plans. This sense of the collective needs also superseded concern for barriers to learning or having technology, centering the human aspect of loss and isolation. Kerri told us: "I would say the tech thing is one, but honestly, it's the social emotional connection. The human experience of this. It was so isolating for a lot of reasons. It wasn't like they could go outside and play either. It wasn't fun. It's scary. It's so uncertain. So uncertain." Leaders understood how radically children's lives had changed in a short period of time, and showed empathy for the fear and lack of security families expressed. One further aspect of care leadership beyond concern for others' emotional well-being was more traditional social work. Leaders enacted concern by navigating the urgent need for resources or safety exacerbated by the school closures.

In many cases, principals stepped up to fill work gaps, subbing for teachers who in some cases, being new, did not have existing relationships to students—or doing other kinds of service online to be in community with children. This work allowed them to practice and embody the care they felt during this crisis. Chris explained that he connected with students in new ways and felt validated in his love for educational work by making this effort.

I led a novel club and I got to work with students in novel reading and seeing those were moments that really reminded me of what this was all about, and I kept it grounded and I think we had to go back to the reasons we got into this work to begin with. And I think it pulled us all back into that space of why we are educators. This is our work. And it just reminded me of how much we all love working with kids, but then how we really wanna fight for them to... I think fighting for them was something that really pushed me through all of it. I think the family that... lost everything in a fire right before COVID hit. Their whole home burned to the ground, and they lost everything they had... They have their lives, but then compounding, it was COVID, yet the community still pulled together and had a clothing drive...So I think it just pulled us back into why we do all of this.

Principals expressed high levels of commitment as well as gratitude for others when they recognized others and were able to name this care labor as the most important aspect of their work. Being there for students enabled leaders to find motivation to keep working on others' behalf.

Motivational displacement

Motivational displacement is characterized by prioritizing others' needs (Louis et al., 2016). Our findings indicate that one way leaders engaged in motivational displacement was prioritizing clear communication above all else. Many of the communication strategies were undertaken without guidance in the early weeks. Communication served both technical and relational needs of making contact and expressing care. Logan said he did not wait for the district: "We started putting content out on a website so that we could at least still be in

community with the children." Rachel explained how she threaded care into the district's safety-oriented emails:

So I went to follow up on what the district puts out and try to give a sense of emotion or humanness behind it as well, knowing that we're just in such a unique situation and people need to feel a little bit of emotion about it.

Logan described how he started multiple means of communicating out, using his personal accounts to get around district messaging, so he could do read alouds to his kids:

There were sometimes though, that like one principal reported me because I was reading aloud to children during the first 2 weeks, and she was like, You could get the district sued... "cause you're offering instruction." I was like, "No, I'm a public citizen reading out loud to kids, and I'm posting on my personal email or personal YouTube channel, and I'm sending it out to families."

Leaders communicated partially to gain a sense of control over a threat situation that was unfolding and lacked clear protocols or parameters. Communication was one tangible act they could perform to connect to their staff and students and offer reassurance. In this way, leaders had a strong sense of their own work and value that enabled them to act with confidence amidst uncertainty, placing student needs above their own personal career. Through communication efforts, leaders focused on the importance of maintaining relationships with staff, urging them to reach students in order to express care and concern. Leaders also modeled support for students not only by making themselves accessible, but also by explicitly offering it to teachers, acknowledging the different individual limitations or challenges. Logan expressed how relationship maintenance was their main work and that teachers needed to ask after their students and share back with him.

I think the most important part was making sure that teachers were maintaining relationships with students and doing their due diligence to make sure that that occurred. So again, really focusing on how are the students feeling? How are they being supported? How are you managing that? And how can I support you? Because everybody had different circumstances, so one-size-fits-all approach was really challenging even given the resources that they gave.

Through constant communication, leaders prioritized the needs of their constituents at times over their own needs. By initially working to connect and share on an individual basis, they modeled prioritizing others' needs. They also quickly moved to mastering modes of shared communication like Zoom, which transformed outreach and connection into a shared experience. Whether it was employed for teachers to support each other and troubleshoot during a "PD in Pajamas" together online, or the act of organizing a driving parade at school so that students could see their teachers again, principals were laser-focused on acting for others' benefit. They used skill and creativity to recreate the relatedness that is fundamental to human reality and promotes the openness and receptivity that enable actions to become caring.

Situationality

As described above, situationality is adaptive and responsive to the unique contexts and conditions of leaders' work (Louis et al., 2016). During the shutdown in March 2020, principals served as the primary point of contact for families and staff. Each leader generally made themselves accessible to everyone at all times; this around-the-clock accessibility went beyond communication to include support and guidance. Bess indicated accessibility meant "being available 24–7 to respond" as they worked to set up routines for remote teaching and learning. Leaders expressed moving into a work mode that made it very hard for them to shut down the computer or phone. Most emphasized the need to be immediately available. Belinda said, "So it was really hard for me, but as I said before, I felt that need for families and students and, and staff to be very immediately accessible to them when they had a problem."

With regard to children, leaders also anticipated students' home environments based on their prior knowledge, in some cases handing out their own cell phone numbers to students they worried would not be safe, writing the nurses' and psychologists' numbers on sticky notes into backpacks so that children could reach out. As Kerri described, principals started responding and did not stop:

We made a lot of just immediate actions that we took. I'm not one myself who ever waits for someone to tell me how to do. I just figure it out. That was where we were at. Once someone called because, again, I was the one in the main office. Someone called with a need, again, primarily for learning packets. But, if someone called and needed some other support from school, we were like, okay. Let's figure out what to do. We were just reacting. It was all very reactionary. I partnered with a neighborhood church, I knew someone who worked in that area, to support and lend a hand in that regard. Hands down, the technology. The digital divide that was real. So real.

Principals described reacting to varied situations without clear protocols and working without their usual physical interactions, reaching out to partners and filling multiple work roles as clerk, copy person, and tech delivery. As a result, being more responsive was one way they coped with the lack of rules and proximity. At first, leaders knew they could offer their voice as presence, cognizant that it was a large, layered constituency. Rachel said:

And I think that's the hardest part of working from your dining room is at work, I can put my eyes on 425 kids, 50 staff members, parents that come in...Specialist support staff that are there. I can physically see them and you can feel emotions, you can see how people are behaving and know who you need to check in on, who you need to support, and here in my dining room, I'm like, You know I...What do I do? So I think it's just letting people know that we're here and we can help.

Leaders also thought that their responsiveness fostered learning and established new routines for collaboration. In general, leaders set zero boundaries on their availability. Only one principal in the data set began to shut down his computer after 3:30, and this stood out as counter to other practices. He also explained this boundary as both self-care and the realization that teachers needed a break; he was not

getting emails because teachers were not on their computers at night. Here, Logan describes how his selfless overwork enabled others to collaborate and grow:

I think collaboration was at its highest because of need and people needed to learn how to do things. My teachers were holding their own Google meets because somebody knew how to do something and they showed it to everybody else, so that was incredible. The learning that came out of that was incredible. I learned that I am not a person that should work at home, that that is really not good for my well-being because I will overwork at any chance given...

The way that caring leadership adapts in context means that it is not rule-bound or driven, but dynamic and innovative. Through situationality, leaders kept in touch with the variations in staff work and learned of early successes, encouraging growth, which engendered more work. They also expressed care for teachers' workloads, desiring to work more so others could focus on students. Because leaders were the central communicator and expressed constant availability, their workload intensified, losing any sense of being done. When meeting routines were disrupted, leaders both took initiative to be proactive about communication out to others and repeated that work individually, due to the changed nature of work. Many leaders also described how the work directives changed rapidly. Logan said:

It was up early running meetings, professional development, keeping up with abundance of emails that were coming through because of the lack of being able to see you in the school or ask you a question on the side, all that now became channeled into emails. Right. And then from there, I was working probably more hours than I should have because it was really hard to make the distinction of work time is done. And there was a lot that I was curating on my own because I didn't wanna put anything on the teachers on top of what they were already trying to figure out. So managing social media sites, managing constant communication with family, making sure teachers knew what the expectations were for the week ahead, because the expectations from district literally changed almost every week along the way.

Although this work now describes the earliest pandemic phase, before schools embarked on the 2020–2021 year under various conditions, principals did not express ambivalence or regret for their work choices or second-guess these efforts to serve as caring leaders in terms of decision-making and connecting on behalf of others.

Mutuality

By virtue of their position, leaders' caring meant absorbing high levels of community stress, but they worked to institute positive social interactions to help alleviate those conditions. Many leaders expressed how scary the shutdown was, noting how high staff and community stress levels climbed, particularly when staff members contracted the virus or when job loss and food insecurity were present. Alex described the daily work challenges as being buffeted by ocean waves:

Since there were so many changes, so many pivots, each time there was a pivot, it created all of those new questions and-and concerns that people would have, and so when things kind of settled down, then there was a new change that prompted more questions, a need for more response and support, and then when those things settled down, there was another pivot, you know. So it felt like that. In some ways like, you're in the ocean and you're, you know, getting caught by one wave after another.

Because they were subject to the collective stress, leaders worked hard to create spaces to share and moments for positive interaction and feeling: some called it joy, teacher appreciation, cheerleading, fun things, dumb little things, intentionals, or being a lighthouse. Leaders expressed appreciation for how their staff worked in difficult circumstances; at the same time, leaders expressed high levels of commitment to restoring their own energy so they could be present. Many relied on networks with other principals doing the same work. As Kerri expressed:

The principalship can be so incredibly isolating. It was good to know that there were a group of other people who were going through what I was going through and we could talk about it. I've definitely come to value and appreciate the importance of connection and relationships and education. It's not just about what we teach them, it's how do we do it, and those relationships matter a lot.

Working on relationships was one of the main ways leaders tried to foster connection. John spent two evenings calling every teacher's inbox so they would receive an encouraging message to their voice and email when they arrived "at work" in the morning. He explained, "So I tried to do a lot of that stuff to just remind them of their 'why' because it was hard. People struggled with it." Leaders recognized this work as care and did not shy from recognizing that each individual was responsible for shared success.

For the most part, leaders created space online for teachers to share, staging events they might have held at school, but naming it "pancakes in pajamas," doing online trivia games and Cahoots. Several principals routinely filmed fun, light-hearted videos from school for students to watch. Elias saw himself as a cheerleader:

It may sound corny. Instilling hope, keeping morale up, helping, and this is beyond just the school building. I felt like even with the parents seeing the bigger picture, and people are dying, kids family members could be hospitalized and we have no idea, turning a D into a C is not the end of the world, stuff like that. And, yeah, I felt myself needing to be a cheerleader, an even louder cheerleader than I typically am.

John organized a drive-through for students with teachers present holding signs and playing music, because kids said they missed being at the building. Noting that 250 cars showed up, he was surprised at the large response and the emotion he experienced. "But I think that was really emotional because it was—we physically saw kids and we realized that I saw so many connections that I did not realize were there." Educators' experiences of the mutuality of caring became powerful drivers of doing care. Although school communities were separated, even isolated, leaders understood that morale work and

relational work using creative tools both revealed and maintained previous bonds.

Leaders also expressed commitment to self-care. Most built on practices they had already established as a way of handling the intensive encounters leadership required. Rachel expressed it this way: "If I do not take care of myself, I cannot take care of others." One principal rode her bike outside every day, and another said she began reading novels again. One leader practiced meditation and made art with his teenage daughter; one took a long, daily walk around his city. One principal saw his therapist every week and relied on an equity coach to support his in-school relational work.

Leaders were explicit about confronting their feelings of powerlessness and failure, acknowledging that in the circumstances, they could not reach all children or help everyone. Alex spoke of gaps he could not "close:"

This work is humanistic. It's not technological, right? I mean, there are some technical aspects to education, of course, but it's really a humanistic experience and, kind of letting go of those kind of common, everyday experiences of walking the hall and-and, you know, popping in and, um, talking to kids and-and teachers in that way is just, you know, it couldn't happen that way. And then I think, you know...and I don't know that I did reach out with this, but just kind of forgiving yourself for not doing everything that you feel like you needed to do or even being able to support people in the way that you think that they deserve to be supported.

By modeling care and responsiveness, leaders saw their own staff collaborate and contribute to morale. They recognized the work as valuable in terms of creating care and reciprocating connection. Belinda felt both validated and inspired by the work her staff had put in by being willing to support others, accepting leadership roles:

To make it through this has been really inspiring. Like just all those little things that people were willing and able to do to go above and beyond that would help people get through a difficult time and bring a smile to their face, I think is, is really important. And the message that I was really clear throughout this whole thing with our staff, was really how I saw their role was to be a lighthouse and to be that, that positive point that people look to when there is rocky waters. And I, I feel like they accomplish that in an amazing degree.

Throughout their work, principals supported staff through specific acts of playful morale building to encourage joy and positivity, but they also communicated to staff their expectation that they each serve an important role by caring for and collaborating with others. In this way, they consciously tried to extend the caring capacity of the organization and cultivate more powerful, sustaining webs of caring.

Authenticity

In caring for others, leaders worked to provide tangible aid directly to students in the form of food, money, technology, and social services. In order to do so, however, principals both had to possess

high levels of community knowledge before closure and be able to reach families during closure. Most leaders quickly developed a system through teachers and by using their own accessibility routines for collecting need. At the same time, leaders did not wait to be contacted; they also reached out. Logan built a spreadsheet of students in need and called it a roll call:

We would spread it out on the spreadsheet and delegate who was gonna make a point of contact that was much more personal for certain kids, if the teacher hadn't been successful in doing so. I specifically have called those families, email those families, the social workers been out to those families. We always start with, How can we help? What do you need?"

In identifying needs, leaders also engaged in coupling actions with stakeholders outside, reaching out to other agencies when they could not make connections on their own. Not only did leaders establish connections for caring, they instituted systems to maintain care and close supervision over student safety.

School leaders drew on community agencies and school communities themselves as resources. In terms of inequality, leaders were positioned to be familiar with their stakeholders, to listen to expressed needs, and act to coordinate care, requesting and redistributing material resources. In some cases, leaders knew more about children's communities and home environments than their teachers. Leaders did not express surprise about the varying levels of need but responded consistently with empathy and worked to marshal aid. Edward describes asking families do donate funds to support another school family:

One girl in particular, emailed and said virtual school, basically, she's saying, it's un-attendable, and I'm not the only one who feels this. So we reached out to her and the counselors did, turns out her dad works at one of the low-end grocery stores in Vista, mom lives in Tijuana and he's an essential worker, and he didn't want her home for a 10-hour shift all by herself. So he sent her down. Internet sucks, she got disconnected on her phone call with the counselor three times because reception issues in Mexico. So just those type of things flared up. So depending on the need, we did a fundraising drive at school for gift cards to Walmart and grocery stores, and so I communicated with people, if you're able, if you need help or if you're able to help, contact us. These are ways to do that. So we gather, I think about \$4000 worth gift cards that we were able to handout to families.

Because they had high levels of information about students outside of school and positioned the school as a place to find assistance, leaders made the virtual principalship into a site of care. Leaders were uniquely connected to both social agencies and school community resources to collect and distribute aid in terms of navigating inequalities within their schools.

Discussion

During the COVID-19 crisis, school leaders intentionally embraced caring leadership with foresight, energy, and courage, almost without reservation. Leaders worked hard to see others and make them feel that their work was important. They also worked to identify risk and reduce harms. They leveraged relationships with their staff and knowledge of their school community in order to organize and direct care.

Through explicit acts of caring, leaders embraced the elements of caring leadership (Louis et al., 2016): attentiveness, motivational displacement, situationality, mutuality, and authenticity in order to provide emotional, social, and academic support to their schools. As authentic leaders, principals created platforms for supporting connection and social–emotional health, starting new clubs and other activities to keep people virtually together. They prioritized communication above all else, acting as information conduits and forging new forms of communicating, especially through video and social media. They were available around the clock, going beyond traditional school hours to problem-solve, support, and connect. They stepped in as social workers, finding food and technology for families who lacked connection to vital services. Finally, they drew on community agencies and the school community to ensure safety and bridge the needs of their families.

By practicing this ethic of care, leaders could use their concern as a resource and motivation that in turn validated the energy and emotion they invested. Although they were explicit about the risks, engaging in self-care practices to maintain their capacity, what seems evident is that caring in action became powerfully generative for caring. The work of doing care, the extension of self in at times extreme ways, generated for them a power that kept them doing more. Because they were fighting for their kids, and their community, the leaders here found meaning and satisfaction. Amidst the fear and stress, they seem to be thriving as caring leaders.

In this study, we sought to explicate what caring leadership looks like in action, especially during a crisis. Building on the deeply theoretical work of Smylie et al. (2016) and Louis et al. (2016), we have attempted to distinguish acts of caring as discrete elements of leadership. In response to research indicating a need for more consensus on the core features of caring leadership (Ryu et al., 2022), we drew on elementary principals' experiences during the COVID-19 pandemic to shed light on these features. Such work is essential to deepening caring as a foundation to other forms of leading (Smylie et al., 2016).

As discussed above, caring leadership may seem tautological; there is perhaps a built-in assumption that school principals are caring almost by design. Caring leadership is often seen as a precursor to high quality school leadership rather than as an independent theoretical framework driven by empirically supported claims of the actions and dispositions of caring leaders. However, a distinction is essential in looking retrospectively at how leaders worked during the COVID-19 crisis.

Caring leaders are boundary spanners; they frequently maneuver between the instructional aims of the organization, the policy aims of the state, and the varied interests of their stakeholders (Noddings, 2006; Ryu et al., 2022). Caring is ingrained in their work but importantly, it is also an antecedent. While Louis et al. (2016) find that we still know little about the creation of "resilient cultures" of caring within schools or the kinds of contexts in which caring might deteriorate, these particular conditions enabled principals to do care with urgency, collaboration, and competence, suggesting that they were working from a culture of caring they had established and



recognized a threat to the resilience of these caring cultures in their practice (p. 338).

In our study, we see this version of caring through myriad acts; principals served disparate needs and diverse constituents and moved their energy and attention between teachers, students, and parents and families. In each school, caring for all meant hundreds of students and staff; many principals did not have assistant principals to work with. We expected some leaders to express more frustration with the unbounded nature of their work or its intensity; express emotional weariness of serving many, diverse, and intense needs in the crisis context; or express unwillingness to engage in the light-hearted and sometimes silly acts of morale building. We found that surprisingly no leaders expressed these notions; all seemed highly committed to and engaged in their practice of caring as professional work. Potentially, schools were already positioned as caring organizations and sites of social welfare in such a way that principals automatically understood their leadership as care, and there was no question of their role. However, research on leadership practices frequently emphasizes professional work as relational and interactive to achieve instructional goals without acknowledging that much of the contemporary leaders' work both centers on and draws strength from mutual, authentic caring for others to accomplish work. Thus, this investigation enhances research on leadership in education to recognize the caring work that principals perform and the value they ascribe to caring.

From our work, we have developed a working model of caring leadership in action (Figure 1).

This model draws on leaders' experiences during the pandemic but is not limited to crisis leadership; indeed, much of what we witnessed during that period of time was strong leadership that transcends context. These acts of caring involve self-care, school-care, and community-care, further demonstrating the essential role that a caring leader plays in improving outcomes both in and outside the school. While only a beginning model, our findings provide a basis to develop a more theoretically and empirically rich model of caring leadership.

Implications

Our findings highlight the actions that caring leaders take, building on existing frameworks of caring leadership. As noted at the beginning, surprisingly little research to date has taken up this question. This study has several implications. First and foremost, our findings provide support for in-service and pre-service development for school leaders. School leaders need to learn to navigate the complexities of care within a larger accountability context. The pandemic offered a moment in time where many of these considerations were removed; for example, there was no mandated teacher evaluation or state standardized testing in many places. As norms revert back to pre-pandemic states, it is vital for leaders to keep the priorities of care as central to their leadership work, not at the expense of other forms of leadership, but equally alongside.

Second, our findings demonstrate the challenges of leadership as care. The pandemic has taken a devastating toll on the ranks of teachers and school administrators. Caring does not come without a cost. Principals report high amounts of stress and overwork, due to the time, emotional energy, and selflessness required to fulfill the role (DeMatthews et al., 2023). These working conditions put them at risk for burnout, a factor that increases turnover and reduces their effectiveness (DeMatthews et al., 2021). District leaders who oversee building leaders must ensure that principals are provided the same

level care as they offer to their own stakeholders. This could take several forms, like offering clinical support in the form of counseling (DeMatthews et al., 2021). Districts can also invest in training for leaders on topics of burnout and well-being, redevelop workload expectations, and adopt policies that enable leaders to take time for health consultations. Finally, districts and proactively create networks of peer support to help principals engage in care for each other.

In times of change, this shift to caring leadership opens a portal into understanding how leadership can supersede traditional forms of instructional leadership to embrace equity, relationships, and attentiveness—or, as our study shows, the foundational elements of caring leadership. The work is needed to keep leaders in their roles, teachers growing, and students learning.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material; further inquiries can be directed to the authors.

Ethics statement

The studies involving human participants were reviewed and approved by University of Pennsylvania. Written informed

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Author contributions

KS led the data analysis and theory building. CS-J provided support on analysis on both aspects. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Toward culturally sustaining/ revitalizing Indigenous family-school-community leadership

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2022 was a year of ongoing struggle for families and communities worldwide with social inequalities, colonial legacies, educational setbacks, and health crises perpetuated by the persistent COVID-19 pandemic and White rage and violence toward People of the Global Majority (PGM). Indigenous communities in particular have been disproportionately affected by long standing structural inequalities and systemic racism. How educational institutions engage with Indigenous families during and beyond these challenging times can either support self-determination, cultural revitalization, and sustenance, or contribute to ongoing legacies of colonization, racism, and cultural erasure. This article provides a review of the literature on family-school-community leadership models and asks: How have conceptions of family-school-community leadership evolved over time and become more culturally responsive, sustaining and/or revitalizing? How might more culturally sustaining/revitalizing models of family and community engagement take seriously the historical legacies of colonization and family leadership in Indigenous communities? Key terms such as involvement, engagement, partnership, and activism are defined and a continuum of familyschool-community leadership frameworks is presented which move from traditional paradigms to more culturally sustaining and revitalizing practices. Relevant literature is reviewed for each of these evolving models.

KEYWORDS

culturally sustaining, culturally revitalizing, culturally responsive, leadership, leadership models, Indigenous families, Indigenous communities, family-school-community engagement

Introduction

For families and communities worldwide, 2022 was a year of ongoing struggle with social inequalities, colonial legacies, educational setbacks, and health crises perpetuated by the persistent COVID-19 pandemic and White rage and violence toward People of the Global Majority (PGM). Indigenous communities in particular have been disproportionately affected by long standing structural inequalities and systemic racism (United Nations Human Rights, 2021). How educational institutions engage with Indigenous students, families, and communities during and beyond these challenging times can either support self-determination and cultural revitalization and sustenance, or contribute to ongoing legacies of colonization, racism, and cultural erasure. Rethinking the models we use to conceptualize and practice family-school-community leadership has major implications for how educators work in solidarity with Indigenous communities.

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Research on family engagement over the past 25 years highlights the essential role that families and communities play in their child(ren)'s educational development and success (Lareau, 1996; Nieto, 2004; Driscoll and Goldring, 2005; Jeynes, 2005, 2007; Epstein and Sanders, 2006; Henderson et al., 2007; Ruffin-Adams and Wilson, 2012; Fricker et al., 2023). Yet as Bang et al. (2018) note, "family engagement paradigms largely remain a one-size-fits all assimilative demand modeled after White, middle-class forms of engagement and practices" (p. 3) which have contributed to "parents of color" being "forced to either assimilate to normative schooling and child-rearing practices or be labeled as deficient parents" (Baquedano-López et al., 2013, as cited in Bang et al., 2018, p. 5). Indigenous families and communities, in particular, have been unjustly labeled as "deficient, deviant, or uncaring" when they have refused to serve as "compliance officers for schools enacting settler-colonial agendas" (Bang et al., 2018, p. 5). International scholarship has found that deficit views and assimilative stances toward Indigenous students and their families by educational system leaders and teachers have proved similar in several settler colonial countries, including toward First Nations families in Canada (Madden et al., 2013; Milne, 2016; Washington, 2021b), Aboriginal communities in Australia (Fleer, 2004; Mander, 2015; Fricker et al., 2023; Weuffen et al., 2023), and Māori whānau in Aotearoa New Zealand (Mutch and Collins, 2012; Hindle et al., 2017; Jacobs et al., 2021).

The mischaracterizations of Indigenous families and communities as deficient, uncaring, and uninvolved ignore thousands of years of self-determination and leadership in the education of their children. Millennia before the arrival and permanent settlement of European colonizers, Indigenous families and communities developed their children's communicative competencies, cultural legacy, and life (and livelihood) skills through language-rich contexts, hands-on learning, and engaging with relatives, the land, and other lifeforms (Lomawaima and McCarty, 2006; Bishop et al., 2009). Traditional Indigenous education was and continues to be culturally responsive, value-focused and geared toward equipping Indigenous children to survive and thrive in the world they live in (Okakok, 1989; Kawagley, 2006; McCarty and Brayboy, 2021).

Indigenous leadership and self-determination over education was disrupted after the imposition of colonial schools, one of the primary sources and sites of colonialism and colonial expansion and control (Lomawaima, 2000; Deloria, 2004; Garcia, 2019). Colonial schools "disrupted the sustainability of language and culture" (Garcia, 2019, p. 72) through "overt practices of assimilation," more subtle practices of "legitimized racism," and "curricular silences" about Indigenous Peoples histories, heritages, and ways of knowing (Sabzalian, 2019, p. viii). School leaders have and continue to serve as principal perpetrators and beneficiaries in this process of elimination (Khalifa et al., 2019). Despite ongoing legacies of colonization, Indigenous educators, families, and community members have persisted in their fight to exercise leadership in the education of their children by carving out "spaces of survivance" (Vizenor, 2008; Sabzalian, 2019) and creating culturally sustaining, equitable, and care-centered schooling environments (see Cavanagh et al., 2012 on the "culture of caring") for their children within and outside of colonial schools (Lomawaima and McCarty, 2006; Bond, 2010; Huaman and Valdiviezo, 2014; Lowe et al., 2021; Washington, 2021a; Fricker et al., 2023).

Considering this historical and contemporary context of Indigenous family and community engagement in education, and adopting a more expansive definition of leadership drawn from Indigenous perspectives that "leadership happens in the community as much as it does in the school" (Khalifa et al., 2019, p. 574), this literature review asks: How have conceptions of family-school-community leadership evolved over time and become more culturally responsive, sustaining, and/or revitalizing? How might more culturally sustaining/revitalizing models take seriously the historical legacies of colonization and family leadership in Indigenous communities? We present evolving terms and frameworks in family and community leadership that move from traditional paradigms to more culturally sustaining and revitalizing practices and describe key international literature that outlines these practices.

Positionality of the researchers

We pose the questions that frame this literature review from the position of non-Indigenous university-based researchers and educators brought together by connection across our work and shared commitments to Indigenous and other communities who continue to experience schools and society as sites of erasure and dehumanization. We are an African American Assistant Professor (first author) from Rockaway Queens, New York, the traditional and stolen lands of the Munsee Lenape People, and an Associate Professor of White settler (Scottish, Swedish, and Bohemian) background (second author), whose maternal grandmother's family homesteaded in 1890 in Western Nebraska on the unceded ancestral lands of the Sicangu Lakota and Oglala Lakota. Our research explores Indigenous and Black families' and communities' self-determination, engagement practices, and advocacy efforts toward more equitable, humanizing, and culturally sustaining/ revitalizing educational experiences for their children in and outside of schools (first author) and historical and contemporary narratives of family and community activism in urban schools and portraits of culturally responsive/sustaining educational leaders from the UK, Canada, and the US (second author). We honor the Wampanoag People of Mashpee, Massachusetts, the Massachusett People of Boston, Massachusetts, and the Coast Salish Peoples of Seattle, Washington on whose unceded ancestral lands we have been privileged to study, collaborate, and develop the frameworks and analysis offered in this literature review.

Methodology

This review of conceptual frameworks in Indigenous family-school-community leadership builds on our recent international literature review and analysis of empirical studies in family-school-community engagement in Indigenous communities through the lens of Indigenous methodologies (see Washington et al., n.d.). Empirical studies on Indigenous family-school-community engagement were identified through database searches using search terms such as "Indigenous," "First Nations," "Native American," "American Indian," "Native Hawaiian," "Aboriginal," and "Māori," (for example), and combining these terms in Boolean searches using terms such as "culturally responsive practices," "culturally responsive

leadership," "culturally sustaining," "culturally sustaining leadership," and "culturally sustaining revitalizing" practices. Databases surveyed included Academic Search Premier, Education Research Complete, EBSCO, Education Resources Information Center (ERIC), Google Scholar, JSTOR, and ResearchGate. We identified additional articles which described and extended these conceptual frameworks through a "snowball" approach in which studies were located in the reference lists of articles located through the database searches. Abstracts and full articles were then scanned by both authors to determine how (if at all) the framework was conceptualized in the article before it was considered for further analysis and possible inclusion in this review.

From involvement, to engagement, to partnership, to activism

Involvement, engagement, partnership, and activism represent an evolution of terms used to conceptualize family and community members' relationships with teachers, leaders, and schools. Traditional parent involvement expects parents to comply with institutional scripts, which are "unspoken dominant norms and assumptions" that require "passive support of the school's agenda" based in white, middle-class values (Ishimaru and Takahashi, 2017, p. 346). Further, parents are expected to see and submit to educators as the ultimate source of expertise in the education of their children (Ishimaru, 2014). Parent involvement "avoids issues of power and assigns parents a passive role in the maintenance of school culture" (Shirley, 1997, p. 74). These passive and powerless roles include attending and supporting school events and fundraisers, helping their children with homework, and communicating high educational expectations at home (Lareau and Horvat, 1999; Shumow and Miller, 2001; Epstein and Sanders, 2006). These prescribed roles that parents are assigned stem from and fulfill the ongoing project of public education in settler colonial nations to assimilate nondominant students and families, including Indigenous families and communities, into dominant culture (McConnochie and Nolan, 2006; Ishimaru and Takahashi, 2017; Lowe, 2017). Traditional parent involvement also fosters colonial concepts of individualism, focused on "individualistic parent support" of "compliance behaviors" (Ishimaru and Takahashi, 2017, p. 346) and building "parents' capacity to advocate on behalf of their own child...an approach that assumes parents only impact is on their own children" (Ishimaru, 2019, p. 355).

While "traditional parent involvement" represents "a deficit-based approach that privileges "historically rooted institutional scripts," family engagement has been conceptualized as a reciprocal or "two-way" collaborative relationship (Ishimaru, 2014; Ishimaru and Takahashi, 2017, p. 346; Lowe, 2017) built on establishing and sustaining relational trust, respect and cultural understanding (Lowe, 2017). In a multisite ethnographic study conducted with Aboriginal community members in Australia, Lowe (2017) found that "genuine engagement" is "two-way" in that it "provides communities with a direct channel to advocate the delivery of education to their children" (p. 50). Further, Lowe (2017) found that "authentic engagement" is possible when educators understand and appreciate the standpoint positions of Aboriginal communities who have experienced and continue to resist and enact agency amid colonial oppression and

dispossession and how this has impacted the ways that they engage in schools.

Another aspect of family engagement is that it moves from a "predominantly individualistic focus" to "collective efforts to engage families together" which can "facilitate advocacy and leadership to benefit all the children in a school or community" (Ishimaru, 2019, p. 356). While a more evolved model that aims to be more culturally responsive to families and communities that have historically and continue to experience schools as colonizing institutions, parent engagement, like parent involvement, has often involved the same colonial goal of assimilating families into pre-existing models or scripts that solely promote school/white-centric behaviors (Ishimaru and Takahashi, 2017).

In comparison, partnership is defined as a cooperative relationship in which families, community members, and school employees have shared responsibilities, shared power, and with mutual benefits (Caracciolo, 2008; Auerbach, 2012). In their study exploring a program in Montana focused on creating partnerships between teachers and Native families, Ngai and Koehn (2016) argue that providing parents with opportunities to volunteer, chaperone field trips, or participate in fundraising for the school is not sufficient. Native families and community members must have opportunities to dialog and deliberate about substantial issues that are important to both school staff and students' families (Ngai and Koehn, 2016). When partnerships are authentic and equal, they result in increased "social and cultural capital" among teachers and families and improve "cross-cultural understanding" because they decrease "power inequities," which is particularly pertinent for Indigenous or Aboriginal families (Freeman, 2010, p. 195; see also Lowe, 2017).

Further challenging hegemonic, institutional scripts, community organizing and parent activism, whether overseen by community organizations or parent-initiated, have been proposed as promising approaches that have cultivated agency, leadership skills, and increased participation rates of historically marginalized parents and community members while building educational equity (Shirley, 1997; Dyrness, 2009; Warren et al., 2009; Ishimaru, 2014; Fennimore, 2017). Community organizing and parent activism respond to structural inequities in family, school, and community relations, and serve to challenge dominant, institutional scripts that disenfranchise and disempower PGM and poor families and communities. However, history has shown that "When the voices of nondominant parents are raised, their 'critique is censored, silenced, or condemned' (Dyrness, 2009, p. 36 as cited by Fennimore, 2017, p. 167)" while right (white)wing parent groups are heavily supported by rich donors who use their privileged voices to censor, silence, and condemn anything and anyone that challenges white supremacy (Graves and Bowen, 2023).

Scholars of Indigenous family and community engagement have documented examples of institutional and educator resistance to Indigenous parents' advocacy for their own and other community members' children and refusal to submit to "racialized (and classist) scripts or rules and expectations of engagement (Friedel, 1999; Washington, 2021a, p. 25). For Indigenous and other disenfranchised families, partnership and organizing or activist forms of engagement help to shift power hierarchies and lift community concerns and causes to the forefront of educational policies and practices that impact their children.

A continuum of family-school-community leadership: from traditional/status quo to culturally sustaining/revitalizing

Just as terminologies used to conceptualize family-school-community leadership have evolved over time, so too have models or frameworks that describe the roles and actions of each group within the relationship. In this section, drawing from the work of educational scholars, we present and describe a continuum of four family-school-community leadership frameworks beginning with traditional/status quo models and ending with culturally sustaining/revitalizing practices.

Traditional/status quo

Traditional or status quo models of family-school-community engagement align strictly with the conceptualization of parent involvement. Epstein's (1995, 2001) well known model of overlapping "spheres of influence" between the family, school, and community has conceptualized parent involvement with schools as six practices (i.e., parenting, communicating, volunteering, learning at home, decisionmaking, and collaborating with the community). It is the most widely cited conceptual model for studying parent involvement internationally and has been used in comparative studies involving Australia, Chile, the Czech Republic, Portugal, and Spain (Davies and Johnson, 1996), Canada (Hamlin and Flessa, 2018), Uganda (Mahuro and Hungi, 2016), and Japan (Yamamoto et al., 2016), among other countries. Epstein's model has been criticized for promoting individualistic and school-centric approaches to parent involvement presenting "a restricted vision of partnership centered on the school's agenda" (Baquedano-López et al., 2013, p. 149; see also Warren et al., 2009). Others have critiqued the model for its failure to address issues of power prevalent in schools in which parents are positioned as passive and powerless (Fine, 1993; Barton et al., 2004; Auerbach, 2007). Furthermore, Epstein makes no mention of the relevance or influence of the intersection of race, class, and other identity classifiers which impact the experiences of families from nondominant backgrounds (Baquedano-López et al., 2013). Poor parents of Color learn to see themselves as "supporters, helpers, and fundraisers" rather than "decision makers, partners and collaborators" (Smrekar and Cohen-Vogel, 2001, p. 87). Fennimore (2017) described this approach to parent involvement as "hegemonic" and "school-controlled," and "biased toward the White middle-class culture and dismissive of the strengths and potential contributions of nondominant families" (p. 160).

An example of parent involvement research from a traditional or status quo framework is the Educational Review Office (ERO) evaluation of over 200 New Zealand schools which used questionnaires and discussion groups to find out how parents and whānau (extended family) can partner more effectively with schools and increase parent participation in school activities (Mutch and Collins, 2012). While a diverse group of parents (including Māori, Pacific, special needs, refugee, migrant, remote, and/or transient families) were involved in the discussion groups, the backgrounds of the participating families were not linked to specific research findings or recommendations in this study.

Culturally responsive

Recognizing a history of disservice, disenfranchisement, and culturally irresponsive policies and practices toward minoritized students within educational systems, Geneva Gay coined and conceptualized the term culturally responsive pedagogy (Gay, 2000, 2010). Building from Ladson-Billings' (1995) culturally relevant pedagogy, Gay defined culturally responsive pedagogy (CRP) as praxis that integrates marginalized students' identities, perspectives, and experiences into teaching and learning. Further, Gay (2010) argued for a total transformation of education systems, including the need to reform policies, funding, and leadership to be culturally responsive.

Since its inception, CRP has become a widely used framework in the United States. Australian scholars describe culturally responsive pedagogy as "....those pedagogies that actively value, and mobilize as resources, the cultural repertoires and intelligences that students bring to the learning relationship" (Morrison et al., 2019, p. v). Further, Vass (2017) argues that culturally responsive pedagogy (CRP) must do more than "celebrate cultural diversity...educators must move beyond thinking about the cultural backgrounds of their students" (Vass, 2017, p. 460) to "evaluate the impact of CRP on student learning and outcomes" (Vass, 2017 as cited by Harrison and Skrebneva, 2020, p. 18). However, Australian scholars also acknowledge that "Culturally responsive pedagogy has received very little attention in Australian educational policy or practice" (Morrison et al., 2019, p. v; see also Hattam, 2018).

Leadership practices

Scholars in educational leadership have extended CRP to leadership. Culturally responsive leadership (Johnson, 2014) describes "leadership philosophies, practices, and policies that create inclusive schooling environments for students and families from ethnically and culturally diverse backgrounds" (Johnson, 2014, p. 148). It also encapsulates organizational structures created at the school and district levels that promote and support student achievement; affirm students' home cultures by incorporating their histories, values, and cultural knowledge into school curricula; empower ethnically, culturally, and economically diverse students and families; and encourage leaders to act as social activists while working to develop the critical consciousness of educators and students "to challenge inequities in the larger society" (Johnson, 2007, 2014, p. 148).

Similarly, Santamaría and Santamaría (2016) describe culturally responsive educational leaders as those who subscribe to educational ideologies focused on increasing student achievement and decreasing dropout rates while also critically recognizing educational inequities as detrimental to the "local and global greater good" (p. 3). These leaders, who Santamaría and Santamaría portray as being privileged members of dominant societies, deliberately choose to withhold or set aside their unearned privileges and entitlements to work alongside or on the behalf of underserved communities of teachers, learners, and

¹ Several terms have been used to describe these practices, including culturally relevant, culturally responsive, culturally proficient, culturally inclusive, etc. In "Toward an Australian Culturally Responsive Pedagogy: A Narrative Review of the Literature" Morrison et al. (2019) list 22 related terms, each with their own nuances (p. 13).

families...lead with a sense of responsibility and purpose in using their access, knowledge, education and spheres of influences to 'level' the educational playing field (p. 3). According to Santamaría and Santamaría, these leaders take deliberate and purposeful steps to confront and interrupt "status quo power and dominance" by "practicing leadership through critical lenses of race, ethnicity, gender and/or difference" (p. 3). By withholding or setting aside their unearned privileges and entitlements and taking purposeful steps to confront and disrupt "status quo power and dominance," these white educators make space for minoritized families and their children to step into positions of power, empowering themselves as opposed to being empowered by leaders.

Khalifa et al. (2016), in their synthesis of the research literature on culturally responsive leadership (which they term Culturally Responsive School Leadership), identify four strands of leadership behaviors: developing critical self-awareness; promoting culturally responsive curriculum and teacher preparation; creating inclusive environments, and engaging students and parents in community contexts by "bringing the community into the school and establishing a school presence in the community." They argue that "community organizing and advocacy for community-based causes are central to Culturally Responsive School Leadership (CRSL) (p. 1290). Articulations of CRL by Johnson (2007, 2014), Santamaría and Santamaría (2016), and Khalifa et al. (2016) are in accord with conceptualizations of engagement, partnership, and community organizing and move another step forward in disrupting and overturning the residual effects and enduring presence of colonial legacies in education.

An example of family-school-community leadership research with Indigenous families which used elements from a culturally responsive framework is Ewing's (2013) participatory study conducted in a Torres Strait Island community which involved parents and young children in the identification of mathematical principles of sorting and patterning they used in their everyday lives. Through a community consultation meeting the researcher uncovered specific cultural repertoires and family funds of knowledge which might inform early childhood mathematics education in schools.

Culturally sustaining

Culturally sustaining pedagogy (CSP) aims to sustain the cultural and linguistic competence of youth and their communities in both traditional and evolving ways (Paris and Alim, 2014). Described by Ladson-Billings (2014) as a remix to her original theory (1995), CSP is premised on the argument that conceptions such as "relevance" and "responsiveness" lack the dynamism to ensure maintenance or continuity in students' "repertoires of practice" (Paris, 2012, p. 95). Paris and Alim (2017) critique culturally relevant pedagogy and other "asset pedagogies" (i.e., funds of knowledge and third space) for their shortcomings in explicitly supporting the maintenance of the languages, literacies, and cultures of culturally and linguistically diverse students and families, and for their failure to critique problematic elements that are expressed in some cultural practices. Furthermore, they critique previous asset pedagogies for their exclusive focus on longstanding practices without recognition of the "shifting and changing practice of students and their communities" (p. 8). In a recent extension of this framework, Paris (2021) explicitly names "whiteness (including white normativity, white racism and ideologies of white supremacy) as the problem, and thus [describes] decentering whiteness and recentering communities... [as]our point of departure" (p. 368). He also acknowledges the importance of resistance by teachers and school leaders, and questions, "What does it mean to be an educator working in opposition to the system that employs us, working toward a system that is relevant to and sustaining for young people, families, communities, and the lands? (p. 370).

Leadership practices

Extending CSP to leadership, Santamaría and Santamaría (2016) conceptualize culturally sustaining leaders as those from historically underserved backgrounds who have "experienced and overcome personal, societal, and institutional inequities in the past and present" and often choose to adopt the lenses of the minoritized populations they serve (Santamaría and Santamaría, 2016, p. 4). According to Santamaría and Santamaría, culturally sustaining leaders are critically conscious and equity and justice-oriented practitioners who:

- Actively engage and partner with teachers, families, community
 members, and students to confront and challenge inequitable
 practices in education that relate to race, ethnicity, gender,
 and class;
- "Work directly with community members, inviting and bringing them into the school to participate and engage in the schooling process; thus honoring the community as their constituents" (p. 4);
- 3. Include staff, teachers, and parents in decision-making and the establishment of shared goals.

In culturally sustaining pedagogy and leadership as conceived by Paris and Alim (2014, 2017) and Santamaría and Santamaría (2016), educators operate through critical perspectives about race, ethnicity, class, and gender and work in partnership with culturally and linguistically diverse families and community members. While Culturally Responsive Leadership seeks to affirm students' identities and to redesign organizational structures to create schooling environments that are inclusive and empowering for minoritized students and their families, Culturally Sustaining Pedagogy and Leadership aims to ensure the survival of the languages and cultures of culturally and linguistically diverse students and their families by supporting and sustaining their longstanding and shifting languages, literacies, and cultural practices. Moreover, CSP does not strive for inclusion in, but transformation of schooling environments that have historically perpetuated white, middle-class, monolingual and monocultural norms (see also Mackey et al., 2020 for a discussion of culturally sustaining leadership practices for Indigenous youth). In a recent extension of this framework Bonnano et al. (2023) connect culturally sustaining leadership with critical care and coin the term "Culturally and Linguistically Sustaining School Leadership (CLSL)" to describe school leadership values and practices that prioritize culturally and linguistically sustaining climates of care.

An example of Indigenous family and community engagement research which utilized elements of a culturally sustaining framework is Madden et al.'s (2013) longitudinal qualitative research study of barriers to community engagement in an urban Canadian school board. The researchers redirected the research gaze through poetic transcriptions which shared community members' stories critiquing

the educational system and the ways that Whiteness and Eurocentrism pervade and shape their experiences. Seeking to disrupt and decenter the normativity of Whiteness, Madden et al. (2013) shared one of the First Nations parent's criticism of a principal in the school board,

"You can't go around talking about respect, if you're still disrespectful. They're the ones that have to do what I had to do to get my values back. How many years have we told that principal the etiquette of Pow Wow? By now you should know how to treat people when they come to your school. It just shows the ignorance." (p. 236).

Similarly, in a research study exploring the desires of Aboriginal Elders (from Mornington Island, Australia) to regain their position in community schools as teachers, cultural consultants, and advisors, Bond (2010) positioned Elders as the "mob" that should be listened to and sought regularly for guidance regarding culturally appropriate curricula and pedagogy for their children.

Culturally sustaining/revitalizing (Indigenous CRP)

Building from the work of Paris and Alim (2014, 2017), Culturally Sustaining/Revitalizing pedagogies (CSRP) are specifically "designed to address the sociohistorical and contemporary contexts of Native American schooling" (McCarty and Lee, 2014, p. 103). While CSP is an appropriate framework for many Communities of Color, it does not fully account for the unique experiences and position of Indigenous peoples in settler-colonial states whose experiences "have been and are profoundly shaped by a unique relationship with the federal government," and their status as Tribal sovereigns (Lee and McCarty, 2017, p. 61). Tribal sovereignty is the right of Indigenous people to self-government, self-education, and self-determination, including "the right to linguistic and cultural expression according to local languages and norms" (Lomawaima and McCarty, 2002, p. 284). Lee and McCarty (2017, citing Brayboy, 2005) argue that "Indigenous peoples' desire for Tribal sovereignty are interlaced with ongoing legacies of colonization, ethnicide and linguicide" (p. 62). They argue for pedagogies in schools serving Indigenous students that are not just sustaining, but revitalizing, given the fact that "colonial schooling has been the crucible in which" contested desires for tribal sovereignty "have been molded, impacting Native peoples in ways that have separated their identities from their languages, lands, and worldviews" (p. 62).

As an expression of educational sovereignty, CSRP comprises three components: (1) confronting asymmetrical power relations and transforming legacies of colonization; (2) reclaiming and revitalizing all that has been disrupted and displaced by colonization (e.g., language, culture, religion); and (3) community-based accountability (McCarty and Lee, 2014). Reinforcing the application of this model for Indigenous communities to culturally responsive and sustaining practices more broadly, McCarty and Brayboy (2021) have recently termed this framework "Indigenous CRP." The goal of traditional Indigenous CRP is "equipping" children to thrive in the world in which they live." (p. 432).

Although this framework by and for Indigenous peoples is community-based and community-driven, educators are included in the work to revitalize and sustain Indigenous languages and cultures. Jester (2017) notes that the current crisis and assault on Indigenous languages and cultural practices serves as a graphic representation of asymmetrical power relations and "legacies of colonization that need to be transformed, reclaimed, and revitalized" (p. 142). Reporting on findings and implications from his qualitative study of the crosscultural experiences of 60 preservice interns serving in schools located in Alaskan Native villages, Jester (2017) proposes steps that educators can take to share power with Indigenous families and community members and reduce hierarchies, which include challenging the typical structures and rules of engagement in schools; supporting the inclusion of Indigenous language and culture in curriculum and instruction; including Indigenous parents as instructors and mentors for teachers, and learning the language of the Indigenous community where they serve.

Whereas Jester's work entailed preparing mainly white preservice teachers, Vinlove (2017) engaged in similar work with a greater focus on cultivating culturally sustaining practices with Alaska Native teachers. Similar to Jester, Vinlove believes that supporting and sustaining the traditional and evolving/living knowledge and community-based practices of Indigenous students and their communities requires educators to learn this information at the local level and from the communities themselves. It is not something that can be simply provided in a prepackaged or premade curriculum or book.

A final empirical example emphasizes the need for educators to adopt an "inward gaze" to "examine current practices and seek out pedagogies that support Indigenous education" (Roth, 2017, p. 170). Roth (2017) argues that educators must first examine their own worldviews and unlearn what they think they know about school in order to be culturally sustaining in their practices. Furthermore, like Jester (2017) and Vinlove (2017), Roth advocates for "Indigenous culture bearers from the community to partner with educators in and out of the classroom" (p. 181) as a way of building their knowledge and capacity to work with Indigenous students and their families.

In summary, CSRP "serves the needs of Indigenous communities as defined by those communities" and positions Indigenous peoples as directors and determiners of their own destiny (McCarty and Lee, 2014, p. 103). Like CSP, CSRP or Indigenous CSP represents a dynamic framework that is not about inclusion in, but transformation of the enduring effects of colonial education. However, CSRP goes further than CSP in its focus on revitalizing along with sustaining to ensure the survivance (Vizenor, 2008) of Indigenous identities and way of knowing and being. Culturally sustaining/revitalizing practices disrupt colonial education and achieve a family-school-community engagement or partnership model most closely aligned with the beliefs, values, and desires of Indigenous families and community members as expressed in the research literature.

Two recent studies which exemplify several elements of this culturally sustaining/revitalizing framework include Anoee et al.'s (2017) study in Nunavut which attributed successful bilingual education outcomes to family- and community-led and community-based language policies and practices which aimed to revitalize and prioritize Inuktitut (the heritage language of Inuit People) in the school curriculum and support lifelong language learning. When participants in the study were asked for examples of promising practices in bilingual schooling (marruungnik uqausiqaq&uni ilippallianiq ilinniarvingmi, literally two language learning in schools),

few of their answers actually reflected activities within the school walls. Instead, they spoke about homes, community, and the land as primary sites of learning, and parents and community members as first teachers (Anoee et al., 2017, p. 5). For example, Mary [one of the Inuit parents] teaches and encourages Inuktitut use through community radio:

"I started a volunteer local radio show for two hours a week. I wanted the Inuit language to remain strong, and to encourage local people to speak Inuktitut at home. Also, young mothers should be taught how to raise their children, so that they are fluent in Inuktitut, and to respect other people." (p. 5)

Washington's (2021a) family-school-community leadership research, conducted in a town and school district in New England that is home to a Wampanoag Tribe, found a group of agentic Indigenous parents and community leaders who challenged inequitable and exclusionary practices and were leading efforts to revitalize and sustain their language and cultural practices in the local schools and community that has been their home since time immemorial. Indigenous community members in this study were driving, directing, and securing the funding to support language and cultural revitalization and sustenance in the local schools and community. This self-determining work was poignantly described by one of the leaders of the Wôpanâak Language Reclamation Project (WLRP) (which launched in 1993), a master speaker of Wôpanâak (the language of the Wampanoag People), and the language teacher for the Wôpanâak world language course that is taught at the local middle/high school. She clarified, "It wasn't them [district educators] coming and seeking us out, 'Hey we'd really love to offer this, are you willing?' It was more our prodding, 'Hey, can we do this? We got the money for it." (Washington, 2021a, p. 18). Further, this Wôpanâak language teacher and other WLRP leaders have worked to establish their own schools believing that "the only way to ensure a truly decolonized educational space and curriculum for Native children is to have their own, separate schools" (p. 14).

Discussion and conclusion

In this review we have identified and applied traditional, status quo (Epstein, 1995, 2001), culturally responsive (Johnson, 2007, 2014; Khalifa et al., 2016; Santamaría and Santamaría, 2016), culturally sustaining (Paris, 2012; Paris and Alim, 2014, 2017), and culturally sustaining/revitalizing practices (McCarty and Lee, 2014; Lee and McCarty, 2017) in family-school-community leadership. Drawing from this analysis, we propose a continuum of four family-school-community leadership frameworks which begin with traditional/ status quo models and end with culturally sustaining/revitalizing practices. We acknowledge that these frameworks are not static and continue to evolve over time, and that individual researchers and practitioners in family-school-community leadership may combine elements of some of these frameworks with others in their research and practice. Figure 1 below synthesizes these four frameworks.

We believe that the emerging frameworks of culturally sustaining and culturally sustaining/revitalizing family-schoolcommunity leadership in particular have the potential for disrupting legacies of colonization in schools serving Indigenous students and placing Indigenous parents and community members at the center of leadership and decision making. According to Coulter and Jimenez-Silva (2017), quests toward CSP and CSRP are obstructed by "overtly restrictive education and language policies" and "inherently racist and colonial aspects of schools" or "endemic and institutional racism" (p. 12, 14). They argue that CSP and CSRP practices can only be achieved when all aspects of the educational system are decolonized, including policies, curricula, and educators.

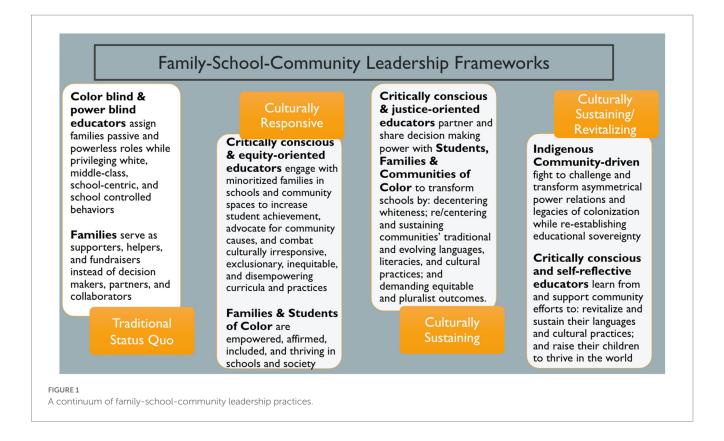
CRP and CSRP require that a critical stance be taken against "White, middle class mainstream norms" (Coulter and Jimenez-Silva, 2017, p. 14) that persist in schools. Relatedly, CSP and CRSP require critical self-reflection, or the act of "indigenizing/decolonizing/identifying" oneself "within culturally sustaining and revitalizing processes" (p. 15). For Indigenous educators, John-Shields (2017, citing Dei, 2011), underscores the "importance of decolonizing yourself to find yourself and to include your way of being into your work/education" (p. 124). Further, Roth emphasizes the importance of white teachers taking the time to closely examine their practices to become aware of ways that they may be perpetuating "ongoing legacies of colonization, ethnocide and linguicide" and to identify ways that they can support Indigenous education (Roth, 2017 citing McCarty and Lee, 2014, p. 103).

Lastly, as uncovered in empirical examples of Indigenous, Aboriginal, and First Nation community leadership in family-school-community work (Bond, 2010; Madden et al., 2013; Anoee et al., 2017; Washington, 2021a,b), decolonizing efforts to revitalize and sustain language, culture, and Tribal sovereignty have largely been community-driven and often community-based. Coulter and Jimenez-Silva (2017) have thus argued that "local cultural communities must be the driving force in articulating the ways in which ways of knowing, epistemologies, languages, and traditions will manifest in the classroom" (p. 14) as well as they have in community spaces.

Culturally sustaining and culturally sustaining/revitalizing practices offer a paradigmatic shift in how family-school-community engagement has traditionally been conceptualized and practiced. These approaches expand the notion of who counts and should be listened to as leaders and reconceptualize where leadership in education takes place in family-school-community relationships. Indigenous families and communities are leaders who possess expertise and, as Elders in Bond's (2010) study shared, are the "mob" who should be listened to and followed in all matters involving Indigenous students and Indigenous education.

Implications for research and leadership

The models that we use to frame our conceptualizations of family-school-community leadership and conduct research in Indigenous communities matter. As culturally conscious frameworks have emerged, new research studies using these frameworks reveal strengths and desire-based approaches and efforts to involve and share research findings with Indigenous communities in culturally appropriate ways. For example, a recent review of 20 international studies on family and community engagement in Indigenous communities (from the US, Canada, Australia, New Zealand, and



Peru) found that the use of Indigenous methodologies and frameworks which position the voices and narratives of Indigenous families and community members as knowledgeable experts and critical agents can reveal decolonizing goals, produce new conceptualizations of families, recognize family, Elder, and community expertise, and counter deficit portrayals (Washington et al., n.d.).

Adopting a culturally sustaining/revitalizing framework in family and community engagement centers Indigenous knowledge and positions Indigenous parents and community members as leaders in language and cultural reclamation projects and advocates for their children in relation to school authorities (see, e.g., Anoee et al., 2017; Washington, 2021a). School leaders who embrace this perspective should partner with teachers, families, community members, and students to confront and challenge inequitable practices (Santamaría and Santamaría, 2016), work to transform colonial schooling, and support educational sovereignty for Indigenous communities.

In these challenging times, we believe that the primary purpose of family-school-community engagement in Indigenous contexts should be to decolonize education, and that using leadership frameworks that adopt culturally sustaining and culturally sustaining/revitalizing beliefs and practices by school-based educators are essential to achieving this goal. Shifting our research practices and learning to honor the perspectives and expertise of Indigenous families and communities can help researchers, teachers and school leaders to embody and carry out the important work of acknowledging, challenging, and dismantling colonial legacies of White supremacy, White normativity, and Indigenous erasure while recentering Indigenous communities and their ways of knowing, being, and doing in schools and educational research.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

The reviewer DN declared a shared affiliation with the author SW to the handling editor at the time of review.

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Creating a high-performing school management team: bringing talent to the table for effective service delivery

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The primary goal of this article is to help members of School Management Teams (SMT) in developing their abilities, which will lead to successful service delivery in secondary schools. The study used a qualitative research technique with an exploratory research design with a structured interview questionnaire to determine if SMTs had certain competences, knowledge, or attributes that increase their abilities and to provide recommendations for enhanced service delivery. The research enlisted the help of n = 12 participants from four different secondary schools to get first-hand experience of the phenomena under inquiry. Participants were specifically picked for their expertise, knowledge, and talents. Data were collected from participants via interviews, and the data were evaluated using content analysis. Atlas-ti (Version 8.2) was used to evaluate data collected from participants. The researcher used a qualitative research approach, namely a phenomenological strategy based on constructivism. With no data modification, this technique was adopted to understand the viewpoints of the SMT inside the selected schools. According to the research results, SMTs have competences, knowledge, and characteristics that increase their abilities, and strengthening these talents leads to efficient service delivery. Leadership, communication, collaboration, and problem-solving abilities were among the talents assessed. Understanding school legislation and regulations, curriculum creation, and teaching strategies were all part of the expertise. Among the characteristics were flexibility, resilience, inventiveness, and enthusiasm. The research advises that SMTs be provided opportunity to develop their abilities via training and mentoring programs based on the results. Several of the duties that School Management Teams (SMTs) are in charge of include procuring teaching and learning resources, updating physical buildings, coordinating community support for funding, and utilizing communication channels. The provision of inclusive learning support in schools is strongly related to these responsibilities. The study determined a certain set of talents and characteristics needed by SMTs, such as interpersonal skills, managerial skills, emotional intelligence, effective communication, and teambuilding skills. These qualities are essential for SMTs to carry out their duties and contribute to better service delivery. The future improvement of service delivery focus on three critical areas: strengthening academic performance, advancing social justice education, and raising student achievement. It is recommended that, by addressing these issues, service delivery within the educational system will be considerably improved in the future.

KEYWORDS

developing talent, educational sphere, effective service delivery, school management team, skills and talent management

Introduction

The paper is crucial because its objective is to assist School Management Teams (SMT) members to develop their talents and making their work easier, enjoyable, and manageable in the future leading toward effective service delivery. Poposa and Kumar (2019) cited, in the era of intense globalization, an organization's ability to thrive and survive depends on how much value it places on and how much it invests in the education and training of its professionals to raise their level of productivity and maximize return. The Department of Basic Education proactively made sure that management mechanisms, such as designating SMT in schools, were in place to ensure that schools have the appropriate support. This paper is essential since the SMT must do vital tasks such as planning, making decisions, managing conflicts, developing teams, negotiating, and overseeing school finances (Department of Education (DoE), 2021). Motivation can be characterized as the satisfaction of certain prerequisites through the exploration of the necessary conditions that encourage employees to work enthusiastically toward achieving organizational objectives and to increase productivity. In the realm of management research, motivation is typically defined as the drive to initiate, guide, and sustain desired business behaviors. The primary objective of motivation is to ensure that employees act willingly and effectively in alignment with the organization's goals. Consequently, heightened employee motivation has a direct impact on organizational performance and ultimately drives organizational success (Demir, 2015; Lee and Raschke, 2016; Yalçınkaya et al., 2019). The majority of the available research on School Management Teams (SMTs) focuses on examining the roles, management strategies, and leadership philosophies of SMTs in educational settings. There is, however, a huge study gap when it comes to pinpointing the precise competencies needed by SMT members to improve their gifts and aptitudes. This gap is especially obvious in the absence of thorough recommendations that could help to enhance service delivery in South African schools. The gap necessitates the following question: Which skills are needed for SMTs to improve their talents and which suggestions can be made to assist SMTs toward improved service delivery?

Problem statement

Lack of clarity on which type of talents are necessary for SMTs: Without a clear knowledge of what talents are required to boost service delivery, identifying methods for developing those talents may be challenging. As a result, the scientific study could require concentrate on identifying the skills needed for SMTs to enhance service delivery. Low availability of talent development resources means that even if the needed skills are identified, SMTs may encounter a lack of resources to develop these talents. This might include a limitation of training programs or professional development opportunities, which could restrict the efficacy of any offered alternatives. Difficulty in assessing the effect of talent development indicates the measuring of the impact of talent development programs on service delivery may be difficult, especially in the near term. This may make assessing the efficacy of any recommended solutions challenging. SMTs may be discouraged to participate in talent development initiatives if they do not see the benefit in such programs or see them as a poor priority in comparison to their other duties. To address these issues, a detailed examination of the present situation, including feedback from SMTs and other stakeholders, as well as a review of existing literature on talent development and service delivery in education, may be required. This information might be used to establish focused initiatives for boosting SMT talent development and service delivery in schools. The likelihood of successful advancement at a school greatly rises with the presence of an effective School Management Team (SMT). The success of the school is largely fueled by the presence of talented people in the SMT. The aspects investigated during this study are which talents or skills must a successful SMT possess, and what must a SMT do to ensure the successful operation of a school?

Conceptual and theoretical framework

Talent management focuses on the systematic identification of critical positions that contribute to the long-term competitive advantage of the organization. It entails identifying, developing, and managing talent pools comprised of exceptional individuals with the potential to be appointed to these positions both now and in the future (Collings and Mellahi, 2009; King and Vaiman, 2019). This conceptual and theoretical framework was done to answer the study's research questions which was to establish if SMT have certain competencies, knowledge, or traits to enhance their talents secondary schools and to come up with suggestions toward improved service delivery. The literature and findings according to the Department of Education, South African Schools Act (Republic of South Africa, 1996: 27), stresses that management should "not be considered as the work of a few" and should "be seen as an activity in which all members of educational organizations engage." The demand for immensely talented and knowledgeable school administration teams in the academic field, cited by Ntuzela (2008:11) indicates that "there is a gap in the South African literature with regard to teacher leadership and distributed leadership theory." Sharp disagreements and conflict were present during the policy-making process that resulted in the South African Schools Act, as well as areas of agreement (Karlsson et al., 2002).

Developing talent in the educational sphere

The success of talent management within an entity is closely related to how well the talent system is designed to address both micro and macro-level interactions across various relevant contexts affecting the company (King and Vaiman, 2019). According to Jarvin and Subotnik (2021), talent development and expertise entails using one's talents to acquire, retain, and apply both explicit knowledge and implicit or tacit knowledge within a field. This knowledge can be used to effectively identify and resolve significant problems.

School management team and it's role

Competent management team leaders can evaluate situations professionally and skillfully, actively seeking opportunities for the growth of their school or organization. When carrying out their

responsibilities, they exhibit strong character traits and qualities such as leadership competence and integrity, exemplifying a dynamic leadership style. To elaborate a bit on the term "competency" describes a person's aptitude or proficiency in a certain subject or profession. The significance of SMTs in the educational system is acknowledged by research, but there is little advice on the fundamental abilities that SMT members need to have to perform their jobs well. For SMTs to operate at their best and to promote successful outcomes in South African classrooms, it is essential to comprehend and define these abilities. Müller-Bloch and Kranz (2015), wrote that it describes the skills, abilities, knowledge, or competency needed to successfully carry out a task, achieve a goal, or play a role. Competencies might be more generic, signifying a broader collection of abilities and traits useful in multiple circumstances, or they can be more specialized to a career or trade. As a result, effective managers must embrace leadership principles, taking on the roles of a follower, a leader, and a communicator in any given situation. According to Wisittigars and Siengthai (2019), the core competencies needed by professionals in management in developed countries have been the subject of numerous research studies. In 2009, for instance, facilities management practitioners from 62 different countries participated in a thorough review of occupational activities that resulted in the identification of eleven key competences. Communication, emergency preparedness and business continuity, environmental stewardship and sustainability, finance and business savvy, human factors, leadership and strategic thinking, operations and maintenance, project management, quality assurance, real estate, and property management, as well as technology are just a few of the areas that these competencies cover (Charlesraj, 2014). A competent manager fosters teamwork, encourages team spirit, and effectively communicates to their followers a clear and concise organizational vision. They provide direction, which is backed up by well-informed and timely decisions aimed solely at improving the institution (Naidoo, 2019). Ntseto (2015), cited that the South African educational system is distinguished by a wide range of complicated features, and educators, academics, and researchers from all over the world concur that good leaders and managers are essential for schools to deliver the best possible education to their students. In the context of educational support for students with special education needs and learning barriers, the term "learning support" is frequently used. In this situation, learning support is essential to helping these students succeed academically. The roles of SMT's are:

- Procurement of teaching and learning resources
- · Improvement of physical facilities
- SMTs mobilization of parents and community on sourcing of funds
- SMTs use of communication channels

Skills and talent management

According to Stahl et al. (2012), active participation from management is a critical component of effective talent management implementation in large multinational corporations. As noted by Collings and Mellahi (2009), talent management entails differentiating

the workforce and relies on a distinct management framework, as described by Becker et al. (2009). Some elements of this framework may go beyond the HR architecture, as evidenced by management's direct involvement in talent development within the operational line and through in-role assignments.

Effective service delivery in schools

Many African countries face widespread poverty, which has a significant impact on their ability to provide high-quality education. Rural schools face unique challenges because of their location. Parental disinterest in their children's education, insufficient state funding, resource scarcity, underqualified teachers, and the practice of multi-grade teaching are all barriers to effective education in these schools. These impediments arise from a variety of sources, both within and outside of the school system, including local communities and educational authorities. Despite 25 years of democracy, progress in improving educational standards and learner performance in rural schools has been slow (Du Plessis and Mestry, 2019). Collective action for service delivery, according to Chowns (2014), is commonly perceived as a way for local communities to address delivery challenges by collaborating and co-producing services. Communitymanaged water pumps and community-run schools are examples of such initiatives. Donor efforts to support collective action, on the other hand, have had mixed results. Numerous government reforms in the education sector have aimed to reduce the state's cost of service provision by involving school communities in local service production and management (Tomkinson, 2007; Körling, 2011; Anunobi, 2022). Schools become more effective when professional learning communities dedicated to improving student performance are established, resulting in transformative changes in leadership and teaching practices (Naidoo, 2019).

Research question

- 1. Which skills are needed for SMTs to improve their talents?
- 2. What suggestions can be made to assist toward improved service delivery?

Empirical investigation

Due to a lack of clarity and limited resources for talent development, the research study focuses on identifying those necessary talents for SMTs to improve the delivery of services. Evaluating the effectiveness of talent development programs and including SMTs in such endeavors may be challenging as well. To address these difficulties, the research may need to conduct a detailed investigation into the current situation, including stakeholder input and a review of existing literature, to design specific tactics to improve SMT talent development and service delivery in schools. The research design in this study is exploratory research design. In this study, the researcher used interviews, document analysis, group discussions, and surveys to gather data. The data obtained from these methods were analyzed to identify patterns, themes, and relationships among the

data. The results were used to provide new perspectives on the research problem and to generate hypotheses that can be tested in future research. The exploratory research design in this study was effective in providing new perspectives on the research problem. By using a variety of data gathering methods, the researcher was able to generate new insights and hypotheses that can be tested in future research (Takhar-Lail, 2014; McNabb 2015; Saunders et al., 2016). Müller-Bloch and Kranz (2015) suggested that finding study areas that need more investigation is the main goal of performing a literature review. There are currently no methodological standards that ensure thoroughness and reproducibility when finding research gaps within qualitative literature reviews, despite the fact that it is widely acknowledged that literature reviews should reveal these research gaps.

Research strategy and methodology

Pathak et al. (2013), noted, the qualitative technique is used to comprehend people's attitudes, interactions, behaviors, and beliefs. It produces data that is not numerical. The researcher used qualitative research, namely a phenomenological strategy underpinned by constructivism as proposed by Blake and Pope (2008:59). Social interaction, knowledgeable other, and the zone of proximal development are three of Vygotsky's key elements (Dimitriadis and Kamberelis, 2006:2). Bodnar et al. (2013), cited that there is no data manipulation while using the qualitative research approach. The situation at the schools was documented and portrayed in its original form. The rationale of this approach was to understand the views of the SMT within the selected schools.

A well-organized data collection approach was used to collect information that is thought to be relevant to the research's goal, hypothesis, and open-ended questions as proposed by Grove et al. (2014). For this study, a qualitative research strategy with an exploratory research design was used by recruiting n=12Participants from SMTs at four secondary schools to get first-hand knowledge of the phenomena under investigation. Atlas-ti (Version 8.2) was used evaluation of data gathered from Participants. The function of related and relevant documents for the purpose of this study is an important source of data for this qualitative research study. The document analysis process is also reviewed in light of actual research experiences (Bowen, 2009). A methodical electronic worksheet was created to perform a SMT related document analysis. The diverse researchers team used all relevant search engines on the related topic as part of the methodical search of the international literature as well as their combined knowledge on SMT's in schools (Toivonen et al., 2020). Interviews were used to collect data, which was then analyzed using content. All ethical standards required for the investigation were followed. Semi-structured interviews were used to gather data, subjected to content analysis. The analysis's conclusions are addressed and supported by those of the literature review. In the end, this offers a thorough understanding of the research and gathers the solutions to the research questions. Openended questions used during the interviews helped the dialog to flow, allowing the interviewee to freely share extensive, reliable, and pertinent information based on expertise with the topic under discussion (Burns et al., 2017). Audio recordings of interviews with the participants' consent and collected data was transcribed, grouped into themes, and coded to initiate the data analysis. The researcher ensured protection of participants' identities, in line with the written agreement made between prior the interviews. The constructivism philosophical paradigm is a powerful instrument used to conduct research in a variety of fields of study and to carry out teaching and learning activities at any level of education (Adom et al., 2016). To represent individuals and participating schools in the study, the researcher employed pseudonyms in the codes. The reliability or rigor of a study is defined as the level of assurance in the data, interpretation, and methods used to verify its quality as suggested by Sekaran and Bougie (2016:374). In this study, trustworthiness criteria—credibility, reliability, confirmability, and transferability were accomplished. Ethical considerations were applied, strict ethical guidelines were followed, ethical considerations included confidentiality, informed permission, anti-plagiarism measures, anonymity, and privacy including adherence to COVID-19 protocols were implied. The POPI Act also formed part of the ethical principles that the researcher adhered to.

Findings

The findings of this study is presented and explained in detail here under:

The research paper focused on four schools located in Mahikeng, in the North West Province of South Africa. These four schools are all classified as secondary schools and are given a code of "SecS" for the purpose of this study. They are fairly distributed within an average distance of 10 km from each other. The research paper also includes a sample size of n = 12 participants consisting of SMT's, each of whom is allocated a code for identification purposes. The codes are presented in Table 1 and follow a specific pattern. The codes are structured in a way that allows the researcher to identify which school the participant belongs to and which group within that school they belong to. For example, the participants from School 1 (SecS1) are given codes P1a, P1b, and P1c, while those from School 2 (SecS2) are given codes P2a, P2b, and P2c and so on. The same pattern applies to participants from Schools 3 and 4. These codes allow the researchers to analyze data according to school and group, making it easier to draw conclusions and make comparisons. Overall, the research paper focuses on four secondary schools in Mahikeng and includes a sample size of 12 participants, each of whom is identified by a specific code. The codes are structured in a way that allows for easy analysis of data according to school and group.

The age, gender and qualifications ranges and number of years employed of participants in the Senior Management Teams (SMTs) research at four secondary schools in Mahikeng, North-West Province, South Africa will be briefly discussed.

TABLE 1 Schools and SMT's selected.

School	Code	Participants
Secondary School 1	SecS1	P1a, P1b, P1c
Secondary School 2	SecS2	P2a, P2b, P2c
Secondary School 3	SecS3	P3a, P3b, P3c
Secondary School 4	SecS4	P4a, P4b, P4c
Total $(n=4)$		Total (n = 12)

- (i) Age: Participants were between the ages of 31 and 35, three were between the ages of 36 and 40, and the remainder of participants were beyond the age of 40. Therefore, having more knowledgeable SMT members participating in the research improves the dependability of the perceptions obtained. This is because of the reality that age and experience are often favorably interrelated. People tend to develop greater knowledge, abilities, and competence in each profession as they have more experience in that profession. As a result, the fact that many research participants were over the age of 40 suggests that they had greater experience and understanding of working as SMT members in secondary schools. As a result, their views and insights are more likely to be trustworthy and useful. As a result, it is reasonable to assume that the participants in the research of SMTs at secondary schools in Mahikeng, Nort-West Province of South Africa, were mostly over the age of 40. This implies that they have greater expertise and knowledge in this subject, which boosts the dependability of the study's observations and insights.
- (ii) Gender: The gender distribution of participants in the study of Senior Management Teams (SMTs) at four secondary schools in Mahikeng, South Africa's North West Province were as follows: male participants outnumbered females in the research. This reflects the gender discrepancies in South African culture, where men often occupy positions of power and authority while women are underrepresented in positions of leadership. In South Africa, gender differences are mirrored in a variety of industries, including education, where males often occupy higher posts such as headmasters and principals, while women are more likely to be teachers. This is due to a variety of causes, including society standards, cultural beliefs, and gender discrimination. The gender gap in the study's participants may impact the trustworthiness of the study's results since the experiences of male SMT members may vary from those of female SMT members. As a result, it is critical to examine gender diversity in research projects to ensure that all genders' viewpoints and experiences effectively reflected.
- (iii) Qualifications: The participants' highest educational achievements in the study of Senior Management Teams (SMTs) at four secondary schools in Mahikeng, North West Province, South Africa; many participants had a bachelor's degree, with two participants having an Honors degree. Just one of the participants has a master's degree. The large number of participants with bachelor's degrees understands the context of the study and can contribute to answering the research questions. This is because a bachelor's degree is the minimum requirement for many professional occupations, including teaching and educational management. As a result, SMT members with a bachelor's degree are more likely to comprehend the educational environment and the issues that schools and educator's encounter. Nonetheless, it is worth mentioning that the participants' academic credentials are not extremely diversified, with just one participant possessing a master's degree. This may restrict the study's depth and breadth of findings since individuals with greater

- educational achievements may have distinct viewpoints and experiences.
- (iv) Number of years employed: This study intended to explore the experiences of Senior Management Teams (SMTs) in four secondary schools in Mahikeng, South Africa's North-West Province. The research included obtaining comments from people with prior experience in these occupations as SMTs. There were twelve participants in the research. Two of the participants had one year of experience, one had two years, and another one had three years of experience. Yet, most participants had five years of experience as SMT members. The results prove that, because of their extensive engagement in the area, replies recorded from the participants with five years of experience are regarded as evidence of appropriate responses to the study questions. This suggests that the researchers feel that participants with more expertise are more likely than those with less experience to deliver insightful and correct replies to the study questions.

Table 2 in this qualitative study provides an overview of the research themes, categories, and corresponding codes used in this qualitative study. The first theme, "Unique/Necessary Skills," delves into the categories and codes associated with this theme, which include "Necessary skills" (NS), "Competent persons" (CP), and "SMT's fully skilled to perform the work they were hired for" (FSPW). The categories and codes associated with the second theme, "SMTs Training experience," are described. These include "No training was received" (NTR) and "Training received" (TR), which reflect the SMT members' training experiences. The third theme, "Set of skills or qualities needed," focuses on identifying the specific skills or qualities that SMT members must possess. This theme's codes cover a wide range of topics, including "Interpersonal skills" (IS), "Emotional Intelligence Skills" (EIS), "Management Skills" (MS), and "Team Building" (TB). These codes represent the specific skills and qualities that SMT members are expected to have in their roles and responsibilities. As a result, Table 2 provides a thorough breakdown of the themes, categories, and corresponding codes used in this qualitative study, providing a clear representation of the key elements explored in the research. These will be elaborated in detail hereunder.

TABLE 2 Themes, categories, and codes.

Theme		Category	Code
1. Unique/	1.1	Necessary skills	NS
Necessary skills	1.2	Competent persons	СР
	1.3	SMT's fully skilled to perform the work they were hired for	FSPW
2. SMTs training experience	2.1	No training was received	NTR
	2.2	Training received	TR
3. Set of skills or qualities needed	3.1	Communication skills	CS
	3.2	Interpersonal skills	IS
	3.3	Emotional intelligence skills	EIS
	3.4	Management skills	MS
	3.5	Team building	ТВ

Theme 1: unique and/or necessary skills

Category 1.1: necessary skills

The question posed to participants was:

"Do you think that SMTs have all the necessary skills to manage schools most efficiently?"

While stakeholder involvement in school activities is critical, it is widely acknowledged that many parents and educators serving on school governing bodies (SGBs) lack the necessary knowledge and skills to make meaningful contributions to school governance (Mestry and Hlongwane, 2009). The South African Schools Act 84 of 1996 requires school governing bodies (SGBs) to take on the responsibility of managing school finances. Nonetheless, studies in this area have revealed a significant lack of essential knowledge and financial skills among SGB members, impeding their ability to manage school finances properly. As a result, principals have assumed additional financial responsibilities, seeking assistance from other members of school management teams (SMTs), such as heads of departments (HoDs) and deputy principals (Basson and Mestry, 2019).

Category 1.2: competent persons

Views from the participants extracted are as follows:

Participant from SecS1 R2a, said that:

"Some SMTs do not really qualify to handle the administration of the school, they are given the position due to lack of competent persons to handle the position."

Participant from SecS2 R4c, said that:

"I may say that some SMTs are elected through the act of nepotism. There is a lot of politics going on in the school environment. Some people who do not merit the position finally sit on the position."

Category 1.3: SMT's fully skilled to perform the work they were hired for (FSPW)

A question that was raised weather the participants felt that the SMTs are fully skilled to perform the work they were hired for, and the participants responded as captured in Table 2 of this paper. Several schools are dealing with difficulties such as poor discipline, teacher and student absenteeism, and high failure rates. Research indicates that personal initiative has a beneficial impact on both individuals and organizations. Individuals who possess personal initiative attain improved academic outcomes, demonstrate increased entrepreneurship, secure employment more readily, and exhibit greater perseverance in pursuing their aspirations. In contrast, business environments that foster personal initiative are perceived as being more productive, profitable, and adaptable. Despite consistent assertions from managers across diverse industries regarding the

importance of resourceful employees, personal initiative remains a subject that has not been sufficiently explored in the realms of school administration and organizational psychology (Frese and Fay, 2001; Frese, 2009; Tymon and Batistic, 2016; Yalçınkaya et al., 2019). These concerns suggest that the schools may not have a comprehensive system in place, which might be linked to the fact that the SMTs are not adequately qualified to handle the duties for which they have been appointed.

Participant's views of whether they are fully skilled to perform the work they were hired for, were as follows: SecS1 P1a: "No, they are not fully skilled. Some of them when they got the post of becoming part of the SMT, it was a very long time ago and I believe that there should have been workshops or development sessions arranged for them to get them into par with the current education system as compared to how things were done in the past when they became SMT. So I believe that they need growth." SecS2 P2a stated: "No I would not say they have a full skill for what they are doing because, when they.

have been appointed as SMT members I have never seen anything of training them or going for leadership courses. So, it means they still need to be trained." The last participant SexS3 P3a argued: "They are not fully skilled as everyone needs or requires an on-going development to enhance their skills."

The information above demonstrates that three participants agree that SMTs are not fully competent. Other input from participants were that:

"I think most of the SMT members find their feet whilst they are already serving. You will notice that most of the teachers, have been teaching without looking at the senior positions. It is only once they get there that they get trained to become the leaders... I know that at some stage when I was still in one of the sister-schools, I was sent to a training which lasted for five days wherein teachers were to be taken through the process of how to be best managers in their respective schools. So many teachers when they get promoted, they do not know what they are going to do."

This suggests that certain school administration teams are aware of a skills gap. SMTs may struggle to successfully administer the school and solve concerns if they lack the requisite abilities. Disciplinary issues, absenteeism, and high failure rates may all have a substantial impact on students' academic progress and the school's overall performance. As a result, it is critical that SMTs be effectively trained to handle these difficulties and deliver successful solutions. It should be noted that the abilities needed of an SMT may differ based on the environment and requirements of the school. Leadership, communication, strategic planning, financial management, and conflict resolution are all typical abilities required for successful school administration. The skills gap among SMTs may be contributing to the issues that schools are facing. As a result, schools must prioritize the training and development of their management teams to ensure that they are sufficiently able to handle the complexities of school administration and lead their schools to success.

Theme 2: SMTs training experience

According to Pasban and Nojedeh (2016), the importance of human skill is critical at all levels of employment. Human skill refers to the ability to interact, communicate, and collaborate effectively with others in the

workplace. It includes characteristics like emotional intelligence, teamwork, leadership, and interpersonal skills. Human skill is important at all levels of employment, from entry-level positions to managerial positions, in fostering positive working relationships, improving teamwork, and promoting a harmonious work environment. Employees with strong interpersonal skills are often better at establishing rapport, resolving conflicts, and effectively communicating ideas and information. These abilities are especially beneficial in collaborative projects, teambased tasks, and customer interactions (Tapala et al., 2021).

Category 2.1: no training was received

Participant P3c from SecS3 responded:

"No, I just went straight to my post. I have never been trained. There was no support at all. I am just using my experience form my JL1 post because you will know some of the things that you have been doing as the teacher given by the head of department as she will be monitoring you. Yeah, that is how you acquire some of the knowledge or skills."

Other Participants confirmed:

P2a from SecS2:

"No, I have never been formally trained. It is just through observation and past experience as a teacher that you get to know what the role of an SMT is, but there has not been formal training."

P2b from SecS2I:

"No, no, no, I have never received any formal training when switching from JL1 to JL2 position."

P1c & P3a from SecS1, and SecS3 respectively:

"No, I have not been trained. I had to do everything myself." "There are no workshops conducted after the SMT have been appointed to their position."

Participant P1b from SecS1 mentioned that:

"They work without knowing their roles... in fact I must say that school management team should among other things play a role in developing teachers at PL1 level for leadership roles; for management roles so that there will always be someone to step in and assist when it is required; however, there is no such development of teachers."

Participant P1a from SecS1 indicated that:

"I went to training here and there but it is not... I believe it is not enough. The training that I have been to is not enough. I have attended training in subject teaching. When I became an SMT member I did not go for any training in order to explain the roles that I was supposed to carry out and how I was supposed to carry out those roles."

Category 2.2: training was received

Participant P4a from SecS4 had a different viewpoint as the participant confirmed that:

"Yes, I was fortunate that when I got appointed I went through training. It was conducted by North-West University Potchefstroom Campus. What was good about it was the people who trained us were people who have been to the classroom before; people who have escalated through the stages to the senior positions, and as a result they were knowledgeable about so many cases."

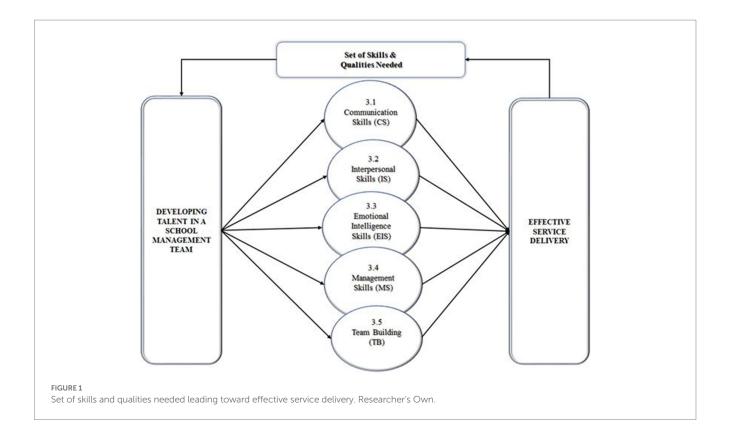
Both P4b & P4c both from SecS4 were in agreement that:

"Yes I have been trained... we go through leadership skills training and management." "I only got trained once through a workshop."

There are certain difficulties, particularly for post level one (PL1) educators who are promoted to post level two (PL2), which compels them to take on administrative responsibilities. In most instances, the post level one (PL1) educator would have been supervised by the SMT. Unfortunately, in the absence of training, new managers are often at a loss in defining and carrying out their new responsibilities. This is particularly the case for SecS1, SecS2, and SecS3 schools. Participants in these schools said that they simply use their intuition about what they think an SMT member should do. Since they had little or no training, they must depend on their own notions of what the position should include. A lack of training and introduction for post level one (PL1) educators going to the post level two (PL2) level may be harmful to good school administration. It may result in a lack of clarity in duties and responsibilities, which can lead to confusion and inefficiency. Participants from SecS4 schools, on the other hand, reported receiving some introduction training and follow-up programs, suggesting a more proactive approach to tackling these difficulties. Overall, 2 participants said "yes." and the majority (6) answered "no," therefore the need of providing proper training and support for educators promoted to management roles is stressed. This will ensure that they have the essential skills and knowledge to properly carry out their new tasks, eventually (See Table 2). It is essential that employees are motivated. In today's business landscape, competition is on the rise, and the pursuit of success underscores the significance of employee motivation for both the individual and the organization. Motivation impacts not only employee morale but also their attitudes and behaviors toward the organization, playing a vital role in achieving individual and organizational objectives. To rally individuals with diverse characteristics around a shared goal and drive success within an organization, effective coordination and motivation by the manager are essential (Tekin, 2019; Yalçınkaya et al., 2019).

Theme 3: set of skills or qualities needed

According to Pascoe et al. (2020), SMT play the role of authority figures in the realm of managing school climate and learning policies, steering the school toward improved teaching and learning practices. The SMTs active participation and the impact of the school culture on



shaping the overall atmosphere of the institution are the primary duties for SMT in fostering a positive school climate.

In this study, Theme 3, which deals with "Set of skills or qualities needed" (SQN) the focus is on identifying and comprehending the specific skills and qualities deemed necessary for the SMTs in the study. This theme seeks to shed light on the specific characteristics and competencies deemed important for participants in their respective roles. Communication skills, interpersonal skills, emotional intelligence skills, management skills and team building skills were identified and are thus elaborated hereunder (see Figure 1).

Category 3.1: communication skills

According to Hallam et al. (2013), a school's effectiveness and progress are dependent on its SMTs communication abilities (Mehmood et al., 2023). Reading, writing, speaking, and listening are all interconnected macro skills in communication (Tizon, 2019). Each of these abilities entails complex processes aimed at achieving specific objectives. Reading, for example, entails deciphering written symbols to understand their meaning (Barrot, 2017). In contrast, listening entails not only hearing what someone says but also engaging psychologically with the speaker (Tyagi, 2013). Writing is a process that involves the creation of meaning by expressing and exploring one's thoughts (Baliya et al., 2013). Finally, speaking entails the creation and sharing of meaning in various contexts through both verbal and nonverbal communication (Bahadorfar and Omidvar, 2014). SMT's in schools should improve communication skills, according to Mutunga (2022), managers spend more than 70% of their time on communication, making it a crucial component of

management. Without clear communication, comprehension could be compromised by the daily noise and distractions at work. Effective communication requires good flow between supervisors, subordinates, and co-workers in all three directions—down, up, and sideways—as well as the provision of insightful feedback. Establishing clear and concise communication channels is also important to prevent drawn-out bureaucratic procedures and complicated pathways that might degrade the quality of the information being delivered. Scherer et al. (2019), technology has a huge impact on almost every element of society. There are two major tendencies that have evolved in the field of education. First of all, curricula and evaluations in educational systems around the world are including digital capabilities (Beller, 2013; Siddiq et al., 2016; Flórez et al., 2017). The use of technology in the classroom is also recommended (Straub, 2009; Shute and Rahimi, 2017), either to facilitate learning or to conduct formative assessments (Shute and Rahimi, 2017). According to Fraillon et al. (2014), the main goal of education has changed to giving pupils the digital literacy skills necessary to successfully traverse the intricacies and dynamics contemporary cultures.

Category 3.2: interpersonal skills

Creating a positive school environment is a critical component of school improvement. According to studies, school management's interpersonal skills are critical in improving the general environment of the school (Mehmood et al., 2023). According to Yulianti (2019), trustworthiness and honesty are essential interpersonal skills for principals. Yulianti also stated that changing school policies without

consulting teachers has a negative impact on the school climate and erodes teachers' trust in the SMT.

Flexible Learning Programs that surround them (MacDonald et al., 2019).

Category 3.3: emotional intelligence skills

The social and behavioral performance of adolescents can be significantly influenced by their emotional intelligence (EI). Numerous studies have demonstrated that individuals with higher levels of EI tend to exhibit greater empathy, leading to more positive social interactions and relationships with their peers (Beauvais et al., 2017; Dolev and Leshem, 2017; Tiwari and Bhat, 2020; Trigueros et al., 2020).

Category 3.4: management skills

Management is made up of several well-known procedures such as planning, budgeting, job structuring, job staffing, performance measurement, and problem-solving. These processes enable an organization to consistently and predictably execute its known skills. On a daily and weekly basis, management ensures that promised products and services are delivered with consistent quality and within budget. Taking on this task is extremely difficult, especially in organizations of varying size and complexity. We frequently underestimate the true complexity of this responsibility, especially if we are not in positions of senior management. As a result, while management is necessary, it should not be confused with leadership (Sebastian et al., 2019). Financial management skills, accounting information systems are becoming more significant and popular across a range of industries, including education. These systems have shown to be helpful in managing financial data at educational institutions, covering duties like budget allocation, expense monitoring, payment of student fees, and general accounting. Automating school operations has become necessary in accordance with government policies to enable effective management. Despite the huge rise in computers purchased by Kenyan schools in recent years, their influence on service delivery has received little attention (Bii et al., 2021).

Category 3.5: team building

Mullins and Mclean (2019) define the factors that influence both team cohesiveness and performance as four key elements: membership, work environment, organization, and group development and maturity (Aung et al., 2021). Educators working in alternative education settings in Australia are frequently motivated by a desire to effect change and transform educational pathways and opportunities for young people. Relationship building, both among staff and with young people, is regarded as critical in this endeavor. Teachers in flexible learning environments, on the other hand, have noticed a prevalent sense of individualism among students, with the youth viewing learning solely in terms of personal fulfillment. Their ability to reengage in education is thought to be dependent on their own motivation and actions. Recent findings, however, paint a different picture, as young people recognize the collaborative nature of team building within the

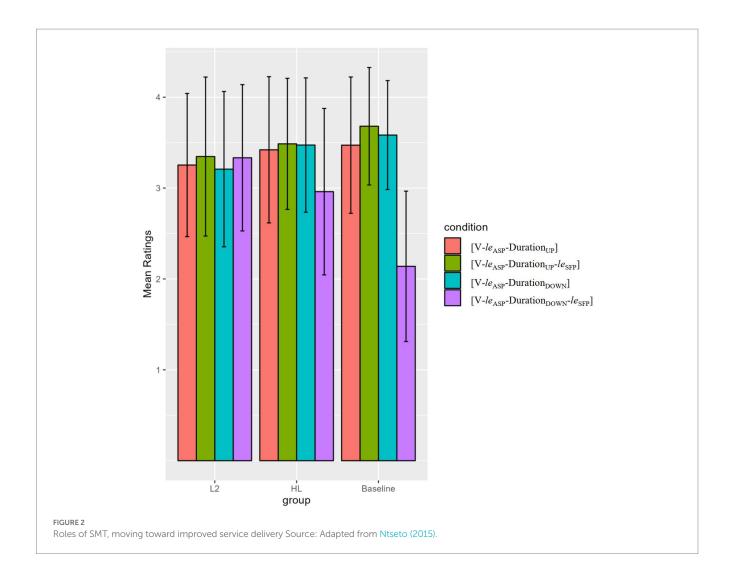
Implications of the findings for enhancing service delivery in secondary schools

The study's set of abilities and skills needed are outlined in the paper, this section will highlight in detail how these findings might improve secondary school service delivery. The report also suggests that schools create a climate that fosters talent development and that SMTs be acknowledged and rewarded for their work. According to the research, fostering talent in a school management team leads to more efficient service delivery. The research delves into the capabilities, knowledge, and attributes that boost SMTs' abilities and recommends approaches to improve secondary school service delivery. The report also underlines the need of offering chances for talent development and recognizing the achievements of SMTs. The study emphasized the importance of specific skills for SMT success in driving school improvement. Effective communication, strong interpersonal relationships, emotional intelligence, competent management abilities, and effective team building were identified as critical for SMTs to facilitate progress and create a cohesive work environment. These abilities are critical for information exchange, collaboration, conflict resolution, emotional understanding, resource allocation, and fostering a shared vision, all of which lead to long-term school improvement.

The acquisition of teaching and learning resources, the upgrading of physical facilities, the organization of parents and the community to secure funding, and the use of communication channels are only a few of the tasks played by School Management Teams (SMTs) in Figure 2. The provision of inclusive learning support in schools is strongly tied to these duties of the SMTs. For the purposes of this study, a particular set of abilities and traits were determined to be required of the SMTs. These include interpersonal, managerial, emotional intelligence, effective communication, and team-building abilities. For SMTs to effectively carry out their duties and contribute to the enhancement of service delivery, several abilities and characteristics are essential. It is essential to underline that three crucial areas have been emphasized to improve service delivery in the future. The improvement of academic performance is seen as the first important component. Second, it is believed that social justice education needs to receive more attention. As a final goal, raising student achievement is also emphasized. Future service delivery within the educational system can be greatly enhanced by addressing these issues. Figure 2, is a consolidation of the roles of SMT leading toward improved service delivery which includes the findings from this study to guide and assist to better understand how these skills can be developed and used to address the issues faced by SMTs in the schools going forward, and therefore the findings of this paper suggest the following to assist improving service delivery in schools: -.

Improved academic achievement

Researchers have known for a while those elements such as the school curriculum, school rules, and socioeconomic status (SES) have



a substantial impact on the learning process (Daily et al., 2019). Learner's academic achievement has a big impact on how they develop because academic skill mastery, especially in reading and math, has a big impact on many other areas of life. These include longevity, physical and mental health, work performance and income, and educational attainment (Wrulich et al., 2014; Calvin et al., 2017; Peng and Kievit, 2020).

Increased social justice teaching

Lambert (2018), highlight how an open course or textbook might adhere to the social justice principles in three different ways. To obtain the greatest socially just result, it should ideally adhere to all three principles. It is crucial to remember that offering an open textbook to every student—especially if they are largely already privileged in terms of education—may not always advance social justice. As it may permit a variety of outcomes for a different group of learners, the impact of such offering relies on the specific cohort and their requirements. Those who already have additional advantages because of their circumstances may benefit even more in top cohorts.

- Redistributive justice: For students who, owing to their sociocultural conditions, are unable to afford them, free educational resources, such as textbooks or courses, are made available. This is crucial for students who might otherwise be denied access to educational opportunities or face a higher chance of failing their classes.
- Recognitive justice: By incorporating pictures, case studies, and
 information from women, First Nations people, and other
 marginalized groups within any given national, regional, or
 learning environment, the open curriculum celebrates sociocultural diversity. Both in open tasks and in the given feedback,
 it acknowledges and values the legitimacy of many opinions
 and experiences.
- Representational justice: The right to self-determination allows
 marginalized people and groups to tell their own stories rather
 than having others tell them for them. Open educational resources
 (OER) books and materials are encouraged to be co-constructed,
 allowing people of color to offer their opinions on other people of
 color, women to share their experiences regarding other women,
 and homosexual people to express their thoughts on gay life. To
 guarantee that silent and minority perspectives are given equal
 time in open online conversations, facilitation is crucial.

Improved learner achievement

Mweli, the director-general of basic education, highlighted several factors that influenced the latest cohort of matric students' results during a recent briefing. These factors include a trimmed curriculum that focuses on fundamentals, revised assessment programs, the cumulative impact of learning losses, insufficient psycho-social support, fewer exams, and the general challenges of learning under Covid-19 conditions (Labuschagne, 2023). Wahono et al., 2020, cite that the teaching, learning, and integration of science, technology, math, and engineering disciplines and skills within STEM courses are all included in what is known as STEM education. A key topic in education is how STEM education affects students' learning results. The main emphasis is on using application and problem-solving techniques to address problems and difficulties in the actual world. STEM education places a strong emphasis on practical applications (Cameron and Craig, 2016; Yildirim and Turk, 2018) to give students the knowledge and skills they need to succeed in a world that is constantly changing and highly competitive. The main emphasis of STEM learning activities is on the development of soft skills, which are crucial for students' learning. Soft skills include problem-solving, higher-order thinking, and collaborative work (Meyrick, 2011; Li et al., 2016).

Discussion

The School Management Team (SMT) is primarily responsible for professional management, while the School Governing Body (SGB) is entrusted with governance duties, according to the South African Schools Act (Republic of South Africa, 1996). Principals have dual roles because they serve on the SGB and oversee the day-to-day operations of the school on behalf of provincial heads of education. Furthermore, the principal is a member of the SMT (Basson and Mestry, 2019). The SMT does not have the necessary skills and does not know what is expected of them in their roles, otherwise the school system would not have been in the tight situation it currently finds itself. According to Labuschagne (2023), despite an improvement in the official pass rate, the actual pass rate has declined. The pass rate for the Grade 10 cohort is 52.5%, which is slightly lower than the 53.4% recorded in 2021. However, it is still approximately 10% points higher than previous years' average rates, dating back to at least 2010. The highest official pass rate of 81.3% was reported in 2019. This increase in pass rate can be attributed to a variety of factors, including a higher number of matric students taking the exams this year compared to previous years. There will be a 3% increase in full-time candidates and a 14% increase in part-time candidates by 2022. In addition, changes were made to the assessment system for Grades 10 and 11 to account for lost learning time due to the Covid-19 pandemic. These changes included a focus on the essential curriculum in Grades 10 and 11, changes to the assessment program, and a shift to school-based assessments with a 40/60 weighting in comparison to exams. The study emphasized the importance of specific skills for school management teams' (SMT's) success in facilitating and advancing school improvement efforts. Communication abilities are required for effective information exchange as well as fostering clear and concise communication within the team. Interpersonal skills allow SMT members to effectively build positive relationships, collaborate, and resolve conflicts. Emotional intelligence skills aid in the understanding and management of emotions, the promotion of empathy, and the creation of a supportive work environment. Shet et al. (2019) stressed that although the concept of competence has many facets, it all stems from the same desire to help people perform better at work. Management skills include a variety of competencies such as planning, organizing, and decision-making, which enable SMTs to allocate resources effectively and achieve organizational goals. Competencies are frequently used in the workplace to specify the desired skills and abilities for a certain position. They describe the abilities, competencies, and conduct needed for people to be successful in their positions. Competencies can comprise both hard and soft talents, such as communication, problem-solving, and leadership skills, as well as technical skills like programming or data analysis (Coussement et al., 2017). Finally, team-building skills are critical for developing a cohesive and motivated SMT, promoting collaboration, trust, and shared vision, all of which are critical for driving long-term school improvement. Connolly et al. (2017), cited that, although it usually and frequently does, carrying a responsibility of this kind is a state of mind that does not require action. Educational talent is taking some sort of action and involves persuading others to accomplish goals in educational contexts. People in charge of a delegated responsibility influence others and are so leading when they act with that obligation. Although responsible educational talent management should always be practiced, this is not always the case. Leadership in education does not always imply being accountable for the operation of the educational system. The educational process is being impacted by rapid changes and increasing needs, leading to emerging social demands. As a result, educational institutions are under pressure to become more dynamic. These institutions are crucial as they deal with human input and products. Therefore, they must adapt to meet the needs of the 21st century's information age and identify and educate potential leaders. School administrators play a fundamental role in this process. Effective management, a strong cultural foundation, and strategic leadership are necessary for utilizing the resources of educational institutions and ensuring their sustainability amidst changing global conditions. Schools are particularly dependent on sustainable leadership as they are the primary organizations responsible for education (Yukl, 2008; Vélez et al., 2017).

Limitations of the study

This study is limited to the experiences of SMTs in schools in the North West Province of South Africa. Its empirical results can help management within the Department of Education, principals and SMT's to develop appropriate training programs for those identified skills needed to improve their own talents/abilities as well as guidance toward policy development and the complicated south African educational system in particular for SMTs. It can also assist newly appointed SMTs to in their early appointment stage, identify and plan toward developing talents which are essential for SMT in the educational sector linking it toward improved service delivery in schools in the future.

Conclusion

In addition to basic leadership skills, school administrators are expected to foster a strong school culture. This requires demonstrating leadership behavior that establishes positive relationships with all stakeholders and activating the school's dynamics. It is important for the educational institution to have a positive organizational image, as this reflects the school's value and acts as a form of institutional identity in the eyes of society. This perception is crucial for the school's ability to adapt to environmental changes and create a sustainable organization (Altınay, 2015; Kalkan et al., 2020). The SASA (1996) emphasizes that self-management will assist schools in carrying out their mission-driven values. Internal devolution of authority within the school must go hand in hand with selfmanagement (Ntuzela, 2008). The paper concludes with future recommendations cited by Hambrick et al. (1998) although there is a significant body of research on the management of talents and how the top executive influences organizational performance leading to effective service delivery and applicable recommendations to address the improvement moving forward.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving human participants were reviewed and approved by NWU-01122-20-52. The patients/participants provided

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The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Taking the lead for campus-community-partnerships in Austria

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Higher education institutions (HEIs) have been going through far-reaching processes of transformation in terms of their missions in teaching, research, and societal impact. Contrary to their previous understanding and mission, Austrian universities are now increasingly required to contribute evidence from research and teaching to meet social challenges and to cooperate with community partners. This forces an understanding of HEIs as a driver for social innovation and requires educational leadership on multiple levels. Overall, campus community partnerships (CCPs) emerge as a dimension of a new culture of cooperation between HEIs and civil society which includes individual, organizational and inter-organizational learning. As, CCPs basically depend on the individual efforts, ambitions and networks of faculty members and educators we raise the questions, (1) who takes the lead for their initiation and maintenance, and (2) to which degree these partnerships have been institutionalized and supported so far. These questions are discussed in the framework of their significance for educational leadership for the establishment of suitable framework conditions for the promotion of social innovation for CCPs. These questions are particularly of interest for the German speaking countries like Austria, since CCPs in this context still have little tradition across the higher education sector. In this brief research report, results from a recent survey (2022; N=107) concerning the initiation, support structures and formalization of CCPs in Austrian HEIs are presented, and conclusions for educational leadership principles for CCPs are discussed.

KEYWORDS

higher education, societal impact, campus-community-partnerships, educational leadership, engaged scholarship, transformation

1. Introduction

Higher education institutions (HEIs) have been going through far-reaching processes of transformation in terms of their missions in teaching and research extending these to the mission of reaching an increased societal impact and social change (Marullo and Edwards, 2000). In addition to their previous understanding as educational institutions educating students and bringing forth excellent research, HEIs are now increasingly required to contribute evidence from research and teaching to meet social challenges and to cooperate with community partners for these purposes. These cooperations occur on multiple levels (strategic management, middle

management, faculty level, teaching level, student level, level of student organizations etc.) and to different degrees of institutionalization (formal cooperation, informal cooperation etc.). Successful cooperation of HEIs with external stakeholders as drivers for social innovation and societal impact - in any case - depends on responsible educational leadership on these multiple levels (Fassi et al., 2020). Today, multilevel analytics on educational governance, management, and leadership are common in educational leadership research, drawing on a variety of approaches and academic disciplines (Elo and Uljens, 2022). Nevertheless, leadership of teaching and learning (TL) still remains an understated topic in higher education (HE), and there is no common understanding of what educational leadership in HEI means. A current study conducting a systematic literature review on scholarly articles relating to leadership in Teaching and Learning (TL) in a HE context, published between 2017 and 2021, points out, that the distributed leadership approach claims to represent a solution to the general discontent with the dominant new public management model in academia (Kinnunen et al., 2023). Distributed leadership calls for a change in perspective, which would emphasize leadership as a collective activity, which envisions the entire community being involved in the work of leadership, and which enables analyses of engaging and participatory processes in HE institutions.

Overall, campus community partnerships (CCPs) emerge, for instance, in the German speaking countries (Austria, Germany, Switzerland) as a dimension of a new culture of cooperation between HEIs and civil society (Zeichner, 2010; Felten and Clayton, 2011). Defining CCPs is a complex task including some essential elements: a relationship characterized by mutuality or reciprocity, involving one or more individuals or groups from the academia and the community and a commitment to an agreed objective (Beere, 2009). Partnerships can be large, small-scale, focused on a single need or objective or serve multiple purposes. CCPs can be conducted with civil society organizations, social enterprises or public institutions - all serving a 'real need' in the institution or community (Resch et al., 2020). CCPs are initiated for the mutual benefit of all involved, such as exchange, knowledge application, or exploration, and should lead to "sustainable, productive, and meaningful relationships with community partners" (Kmack et al., 2022: 16). CCPs are influenced by a number of factors, such as campus size (large universities tend to have more supportive infrastructure and resources), type of the HEI (research universities tend to focus on research tasks more than teacher training colleges), and location of the HEI (those located in urban areas might have a more vivid campus life involving community partners) (Beere, 2009). These partnerships require different forms of leadership compared to research and teaching and new modes of learning on the individual, organizational and inter-organizational level (Fahrenwald and Fellner, 2023). As a form of research-practice transfer activities, CCPs contribute to organizational innovative practice (Martin et al., 2005) by involving civil society partner organizations in HEI's missions and core activities.

Despite a considerable body of research on CCPs in HE system in the Anglo-Saxon countries (Fleming, 1999; Percy et al., 2006; Osafo and Yawson, 2019) so far, little is known about the institutionalization of the emerging CCPs in the HE system in the German speaking countries. Against this background, the questions arise (1) to which degree these partnerships have been institutionalized and supported by the HEIs so far and (2) who takes the lead for their initiation and

maintenance. These questions are discussed in the framework of their significance for educational leadership for the establishment of suitable framework conditions for the promotion of societal impact and social change for CCPs. The purpose of this collaborative research project, conducted among several HEIs in Austria, is to map the current status quo of CCPs in Austrian HEIs to identify the ways in which educators receive institutional support in implementing these formats.

1.1. CCPs in the context of educational leadership in higher education

Within teaching, CCPs are more often represented in certain learning formats, which diverge from traditional lecture-based approaches to learning (engaged scholarship). Engaged scholarship can be viewed as a teaching format that relates to civic engagement involving campus-community partnerships (Harkins, 2013). This requires an understanding of active student learning, in which students actively strive to improve their learning through analysis and reflection. Students view themselves as active change agents, knowledge producers and co-creators of their own educational experience, rather than consumers of knowledge - as might be the case in traditional instruction-based courses (Darling-Hammond and Bransford, 2005; Harkins, 2013). In instruction-based approaches in higher education the educator acts as the main knowledge holder, however in engaged scholarship the role of educator changes from traditional instruction to guidance, counselling, and mentoring (Resch et al., 2022). Active learning involves more interactive, discussion-based and field-oriented learning (Harkins, 2013) and civic engagement provides diverse forms of active learning through community engagement. This form of teaching is supported by a general didactic shift from lecture-based approaches to more selfdirected and open learning formats in higher education in recent years (Zeichner, 2010). Approaches, which function well with the involvement of community partners and in turn require wellfunctioning CCPs, are first and foremost service learning (Felten and Clayton, 2011), but also community-based learning or research. These teaching formats, however, do pose certain challenges to educators, who need to organize and manage these community partnerships accordingly. CCPs often depend on the individual efforts, ambitions and networks of faculty members and educators (Resch and Dima, 2021). Community-based research and service-learning are application-oriented and experience-based learning formats that ultimately aim at enhancing students' sense of civic responsibility (Bringle and Hatcher, 1995; Felten and Clayton, 2011).

Based on the common value of working together in engaged scholarship, academics and community partners enter more or less formal partnerships pursuing a common goal (Levkoe and Stack-Cutler, 2018). CCPs can be viewed as relationships between community partners and HEIs that follow several phases: relationship initiation, development and maintenance, sustainable relationships or dissolution of relationships (Bringle and Hatcher, 2002). The degree of institutionalization of CCPs strongly depends on the educational leaders initiating the partnerships (Levkoe and Stack-Cutler, 2018). The most extensive body of research exists for the service learning approach as one form of engaged scholarship (Harkins, 2013). The exponential growth of service learning in the last years in Europe and

in Austria as well are clear indicators for a renewed emphasis on CCPs in higher education leadership, policy, and practice (Resch et al., 2020).

Furco (2003) and Kecskes (2013) identify three stages of sustainable institutionalization of service-learning activities. In the first stage (critical mass building), the campus begins to recognize service learning and build a network of actors. Initial efforts are made to create an appropriate foundation for the implementation of service learning; at this stage the service-learning concept is not clearly defined and is used inconsistently to define a variety of communityoriented activities. In the second stage (quality building) the campus focuses on developing 'high quality' community-based activities and expands the network to include these activities. Service-learning components are often perceived as an important part of the university mission, although they are not officially included in the mission statement or strategic plan. In the third stage (sustained institutionalization), the campus has fully integrated communitybased learning into the culture and structure of the institution. This stage is characterized by an internalization of service learning in the academic culture. The needs of community partners are identified and aligned with the learning objectives of the HEI.

At the stage of critical mass building, CCPs may be a leadership response to an invitation to engage or may be initiated by lecturers, faculty members on behalf of the universities (e.g., in forums, study circles, or applied coursework) or the community partners (e.g., in local gatherings or moderated community dialogues) (Fear, 2010). CCPs can be carried out on an isolated basis - based on the decision of individual lecturers within the framework of their courses, projects or activities with students - or on a coordinated basis - as a joint effort of various institutes or faculties together with civil society actors (dispersed versus coordinated model; Mulroy, 2004). Isolated CCPs can also take place in the context of curricular and extracurricular university activities such as volunteer programs. While the differences between these teaching/learning methods are not always clear (Harkins, 2013; Resch, 2021), they are in any case intended to support students' experiential, applied, and transdisciplinary learning. In this regard, "coordinated" CCPs exhibit an institutionalized form that requires supportive internal higher education structures. These offer a contact point for practice partners over a longer period of time or permanently (e.g., in the form of a coordinating office for non-university cooperation, an entrepreneurship program or a volunteer center; Butterfield and Soska, 2004).

Facilitators play an essential role as educational leaders in CCPs. Facilitators can be individuals or institutional leaders which promote CCPs. According to Tennyson (2005), there are internal and external facilitators, individual or team facilitators, and proactive and reactive facilitators in the context of CCPs. Internal facilitators work within the partner institution (either HEI or community) and are responsible for preparing the CCP and managing various aspects of the partnership. External facilitators are contracted to set up CCPs and build capacity in this area. Both individuals or teams can act as facilitators in CCPs. Proactive facilitators build partnerships, while reactive facilitators coordinate existing partnerships within a HEI or community. Although facilitators are heterogenous in their motivation, mandate, target groups, and organizational background, they do share commonalities and power to establish and support or disrupt and dissolve CCPs. Facilitators are likely to take over a range of roles in the partnerships between HEI and communities, and a strong role in sustaining partnerships if they are employed over a longer period of time to overcome constraints of lecturers posed by the academic schedule (Levkoe and Stack-Cutler, 2018). Levkoe and Stack-Cutler (2018) identify community-based facilitators, university-based facilitators, resource-based facilitators (dependent on funding bodies) and professional facilitating networks. The later might have a broader network of partnerships or matching opportunities at hand but might not be able to engage in a deeper partnership involving decision-making depending on the topic.

These questions are particularly of interest for Austria, since CCPs in the context of teaching still have little tradition across the higher education sector. This requires both a national and comparative approach to analyzing the state-of-the art of CCPs in the four different types of higher education institutions in Austria.

1.2. CCPs in the Austrian higher education context

Austria's higher education system consists of 74 HEIs separated in four sectors with a different approach and tradition towards CCPs. According to the Universities Act from 2002 (§ 3 Abs 8 UG), *Public Universities (22)* are not understood as entities isolated from society; instead, the Universities Act emphasizes their active role and contribution to society. The focus of *Universities of Applied Sciences (21)* lies on study programmes and societal impact is less in the focus of the institutions. CCPs with institutions relevant to students' later professional life are nevertheless common. *Universities of Education (14)* frequently conduct CCPs with schools and other educational stakeholders (Resch et al., 2022).

2. Methodology

2.1. Rationale

The research project advances the state-of-the-art on (1) how CCPs emerge within HE in Austria and (2) to what extent they are institutionalized, (3) the degree to which CCPs still depend on the educators' social and professional networks, (4) the relevance of CCPs for HEI management and Third Mission, and (5) differences in the emergence and degree of institutionalization between the various types of HEIs and HE systems in Austria.

2.2. Instrument

The online survey consisted of 70 questions regarding different themes, such as the initial motivation for CCPs, significance and support structures at the universities, as well as the concrete conditions of the formation and implementation of the respective partnerships. The survey addressed educators' perspectives on CCPs, their initial motivation, the emergence and implementation of CCPs, the number of CCPs per course/program, as well as other characteristics like duration, frequency and pattern of the interaction with students. Additionally, the survey collects data on the course/program itself (type, credits, form of evaluation etc.) and the educators' profile (status, qualification, experience with Service-Learning etc.). The items of the instrument were developed in orientation on existing

questionnaires from German data on Service Learning and was validated in different feedback-loops cooperating with transnational experts.

2.3. Data collection and sample

From spring to autumn 2022, the online survey was conducted with educators in all four above mentioned higher education sectors in Austria. The invitation to participate in the survey, with a short introduction and an online link/QR code, was sent via email to institutional contacts and highly involved educators, asking them to spread the mail (snowballing) to other educators who might be applying CCP. Additionally, educators were contacted according to their teaching profile based on an extensive desk research. In total, findings from N=107 educators who participated in the survey and stated actively collaborating with community partners within the framework of their courses in the academic year 2021/22 were used for the current study.

2.4. Data analysis

After data collection and data clearance, the descriptive analysis gave an overview about the perspective of educators working and implementing CCP in their teaching. The focus of the analysis was to get more information and insights about the different forms and the amount of support which these educators perceive from their HEIs. Additionally, the socio-demographical data from the educators were compared with official data available from higher education reports by Statistic Austria. This enables to find out about the characteristics and particularities of educators working with CCP and how they might distinguish from other educators. Based on the results of the descriptive analysis and the distribution of educators' answers the level of the institutionalization of CCP at Austrian HEIs was identified.

3. Results

The findings of the mapping provide insight about the dissemination and institutionalization of CCPs in Austria as well as about the role of educational leaders within this process.

3.1. Characteristics of the educators applying and leading CCPs

The educators applying and leading CCP in their teaching have mostly reached an academic mid-level: in terms of their highest completed education, 35% of the respondents have a master's or diploma degree and 41% have a doctorate. Forty-nine percent of the educators are between 40 and 54 years old. Women are overrepresented in the survey with a share of 61% compared to the population of all university educators in Austria (43% women, 57% men). Among those respondents (N=51) who report cooperation with community partners in higher education teaching for the academic year 2020/21, the proportion of women is also above average at 61%. In the context

of leadership this means, that leadership and the responsibility for CCPs is often a female phenomenon on a post-doc level.

3.2. Degree of institutionalization and support of CCPs

The answers of the educators specifically about the available support services for planning and implementing cooperation with community partners in the context of teaching clearly show that these have not been established yet or are hardly perceived as such. Less than one fifth (19%) of the respondents' state that there is a coordination office for one or more forms of CCPs, such as for service learning or community service, at their HEI. Likewise, 19% refer to professional support in the design and planning of CCPs via training courses offered by the HEI. Only between 14 and 17% report institutionalized forms of support for the initiation and implementation of CCPs, such as personnel, financial and digital support. Around 20% of respondents are currently unable to provide any information on support structures. Only 18% of the educators perceive some kind of recognition by the university for their cooperation with community partners (Figure 1).

Around 53% of the respondents state that their HEI does not provide any of the above-mentioned support services (no institutionalization). Thirty-one percent report one or two institutionalized support services at their HEI (low institutionalization). For 12% of the respondents, three to four different offers are available (medium institutionalization). Only 4% state, that their HEI offers comprehensive institutionalized support for CCPs. Overall, these results are an initial indicator of a currently still barely to very low degree of institutionalization of CCPs at Austrian HEIs. Acting as an Educational Leader in HEIs the educators do not seem to be extensively supported in their efforts and the process of initiating CCPs from their institutions. This kind of leadership focusing on societal transformative developments is not located on a system level, or an organizational level but rather on the individual efforts of engaged scholars. As a consequence, this implies a high responsibility of the single educator. We must assume that informal networks between educators in the same scientific area may exist. But nevertheless, on the institutional level, educators' actions and cooperations in CCPs are not systematically coordinated between each other or concerted.

3.3. Engaged scholarship in the context of CCPs

At the level of educators' courses (n=53), the main question is, how CCPs are initiated, and which actors play a significant role. In the majority (66%) of the courses, cooperations with community partners were initiated on the basis of personal interest and the educators' own initiative and personal contact. Requirements in the curriculum or by the academic unit were given as the decisive reason for cooperation in only one third of the cases. About a quarter of the educators' report that the cooperation is due to requests from the community partners. In comparison, for only 9%, the collaboration is due to the initiative of students. In this case, students seem to be involved in the decision

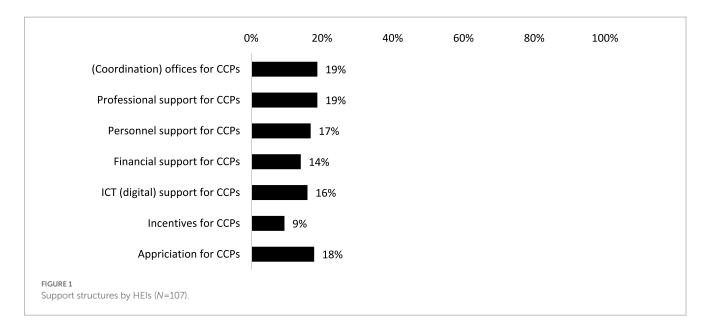


TABLE 1 Reasons for CCPs (multiple responses).

Reasons	%
Educators personal interest and initiative	66
Curricular requirement	38
Required by the academic unit/division	32
Request of community partner	28
Student's initiative	9
n = 53	

and selection of community partners only in individual cases and there is no institutionalized practice in this regard (Table 1).

This perspective is similar looking at the selection of community partners. The initial first-time contact is attributed to the personal acquaintance of the educator in charge (around 47% agree) and to existing contacts of the academic unit/department (around 30% agree). On the other hand, selection based on direct requests by community partners (around 17% agree) or established cooperation at the HEI (around 12% agree), but also on student initiative (around 11% agree) are mentioned much less frequently (Figure 2).

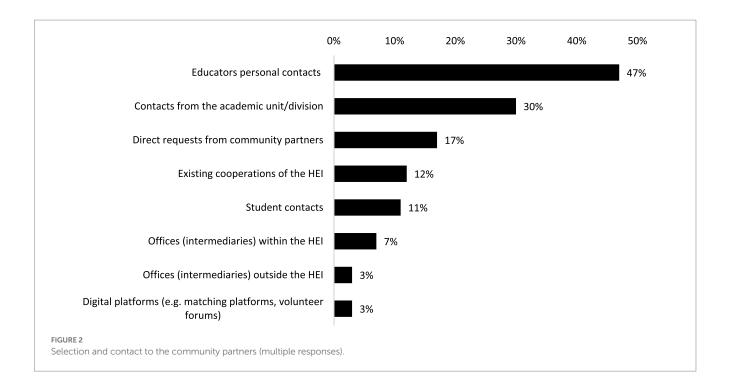
Placement offices and digital platforms seem to play a marginal role so far. These findings add additional support to our hypothesis, that most commonly, educators initiate, organize and manage CCPs and therefore serve as primary CCPs leaders.

4. Discussion

The empirical results show that CCPs have not been institutionalized at Austrian HEIs so far; instead, the personal interest and commitment of educators as well as their contacts form the starting point and the basis for CCPs in higher education teaching. Only one fifth of the practicing educators receive some form of support for courses of this kind and only about 12% of the educators agree to cooperate based on already existing partnerships. Beside

mentions of third mission activities in the HE mission statements (Resch et al., 2020), HEIs in Austria still lack official support structures for CCPs (cf. Mugabi, 2015). There is a high proportion of educators (over 75%) practicing CCP who themselves have experience in volunteering and voluntary work, and thus established contacts with civil society organizations. Voluntary work outside the HEIs thus seems to increase the likelihood of CCPs in teaching, whereby educators predominantly belong to the academic middle class (postdoc phase without habilitation and post-doctoral phase). From this part, educators' own volunteering experience and their personal contacts are highly important for the initiation and integration of CCPs in their teaching. In this sense, the data indicates that mostly educators are taking the lead for CCPs. Nevertheless, to further increase the societal impact and utilize CCPs full potential, educational leaders need support in a twofold way. First of all, institutionalized support structures for CCPs should be established at all HEIs to disburden educators in terms of organizing and managing CCPs and institutional reward systems need to be changed (Marullo and Edwards, 2000). Second, educators leading CCPs should be trained and facilitated to become transformative leaders and serve as societal change agents to promote social innovation in education (Fahrenwald et al., 2021).

In the face of current societal challenges, both communities and HEIs may struggle to mobilize collective action, hence, leadership in this context means producing direction and cultivating collective capacities for action, such as CCPs (Kliewer and Priest, 2019). CCPs have, in principle, the potential for broader participation in social transformation processes (Marullo and Edwards, 2000); however, the establishment of CCPs, but also preparation and implementation of partnerships usually require a lot of resources. Cooperation between HEIs and community partners has so far been linked primarily to educators' interest or commitment. In this respect, support services must be designed in a way that a culture of participation is sustainably promoted and institutionally anchored. Since partnerships between HEIs and community partners are in Austria predominantly "bottom-up" initiatives of the educators, it is, on the other hand, important to reflect on which unintended side effects might be associated with an extended regulation by leaders of the higher



education institution ("top down") and to what extent this would mean a loss of empowerment and freedom for the educators as leaders.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

CF, KR, PR, MF, PS-Z and MK contributed all to the conception and design of this article. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Reflections on leadership preparation research and current directions

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This reflection addresses the need for research on how leadership preparation features develop candidates' leadership skills and practices, as aligned to recent research on how principals best influence student learning. It reviews the nature of leadership preparation research, the investments in preparation programs, how the field has promoted leadership preparation research, and new developments in related research. Guskey's program evaluation framework—which emphasizes evaluating the effects of professional learning on what candidates learn and do and the impact on their organizations—is useful in highlighting current shortcomings in how preparation features have been evaluated and identifying areas for further, more strategic research.

KEYWORDS

leadership development, assessment, preparation programs, principals, evaluation

1. Introduction

Recent research has drawn attention to how key leadership practices influence school quality and student learning and has underscored principals' strong influence on student performance particularly for those students who have been historically most marginalized and underserved (Hitt and Tucker, 2016; Grissom et al., 2021). Grissom et al. (2021) compared principals based on their above-and below-average ratings and found statistically significant differences in their impact on students' math and reading performance. Given the scope of a principal's effects, they concluded that principals are the single most important school-related influence on student learning. From their large-scale review of available qualitative and quantitative research studies, they identified three principal behaviors as most influential: "engaging in instructionally focused interactions with teachers...building a productive school climate...(and) managing personnel and resources strategically" (p. xv). Hitt and Tucker (2016) similarly synthesized the available research literature to identify key leadership practices. Drawing from research and theoretical literature, they identified 28 key leadership practices and organized these into five domains, which is similar to the Grissom and others' focus on engaging with staff and supporting student learning, but also emphasizes establishing a vision and engaging with external partners.

Given new insight into effective leadership and critical leadership practices, it is essential that the leadership preparation field learn more about how to how to translate these insights into effective curriculum and pedagogical practices that ensure the readiness of aspiring leaders. Effective preparation depends upon knowing what to teach and how to develop these skills, how to advance skills further through applied field-based experiences and how to scaffold learning coherently. Without well-designed research that investigates deeply the relationship between pedagogy, learning and subsequent leadership practice, however, understanding how and in

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what ways preparation programs can effectively develop these leadership skills and candidates' potential success remains elusive.

Yet, such research has been limited historically. Available research has shown that qualitative differences in preparation content and field experience yield different outcomes in subsequent leadership practice (Orr and Orphanos, 2011; Orphanos and Orr, 2014). This research, while confirming the value of leadership preparation, relied on general measures of program characteristics and lacks detail on how these features were operationalized to yield effective leadership capabilities. What is missing in the field is evaluation research on how specific program content, field experience and program organization actually develops the readiness of aspiring leaders and their eventual success in strengthening school quality and student learning. For example, what mix of content, assignments and assessments best develop candidates' knowledge and skills and their use in subsequent leadership practice. Such evaluation research requires a longitudinal mixed methods approach to trace how specific learning experiences actually contribute to subsequent leadership practices and in what ways. But designing and conducting such research, particularly for critically needed leadership skills, has been and continues to be challenging.

The first set of challenges centers on the nature of leadership preparation research and the limits of what has been learned thus far. The second challenge centers on the need for funding for large scale research, as juxtaposed against the lack of in-depth evaluation research tied to recent public and private investments in leadership preparation, despite their aim to promote specific innovative program approaches and workforce goals. The third challenge relates to the methodological challenges of evaluating leadership preparation programs. Despite these challenges, several recent studies have tried to gauge the prevalence of quality preparation program features generally among university-based programs, as benchmarks of the field as a whole, and other smaller scale studies explore potentially innovative features and approaches showing on-going efforts.

The field needs research that can interrogate the relationship between preparation approaches and strategies and the leadership and organizational successes of program completers. Guskey's program evaluation framework is useful in clarifying how best to evaluate the relationship between preparatory experiences and outcomes (Guskey, 2000). This framework includes documenting the nature of the programmatic experience provided (understanding how it works pedagogically), assessing participants' reaction and learning through the experience, and evaluating how graduates' use their new knowledge and skills, as well as the impact on the schools and students as a result of these skills. This reflection ends on a call for more focused and strategic evaluation research, as outlined by Guskey's framework.

2. Nature of leadership preparation as a field of study

The first challenge centers on how leadership preparation became defined as a field. Only in the last 20–30 years has leadership preparation been viewed as a worthy field of study. Historically, programs had given priority to preparation in school administration, borrowing heavily from management science (Strayer, 1944; Murphy and Hallinger, 1987; Clark and Clark, 1996). In fact, there were debates about the content and approach to the preparation of school and

district leaders, including whether aspiring leaders needed training in curriculum and instructional matters and debates about initial leadership preparation internship (Douglas, 1992; Bjork and Ginsberg, 1995; McCarthy, 1999; Fink and Resnick, 2001; Frye et al., 2006). The development and subsequent revisions of national leadership standards helped to set these debates and pushed the field toward emphasizing social justice and instructional leadership and leadership for school improvement (Council of Chief State School Officers, 1996, 2008; National Policy Board for Educational Administration, 2015).

The field of leadership preparation gained its own identity in the early 2000s, concurrent with large scale study findings that school leadership matters for school improvement and students' academic progress (Leithwood and Riehl, 2005; Sebring et al., 2006; Robinson et al., 2008). With accountability policies redefining and measuring schools' effectiveness based on achievement (Spillane and Kenney, 2012), critics blamed leaders and their preparation for differences between low and high performing schools, and began to target leadership preparation as a modifiable area to improve educational outcomes (McCarthy, 2001; Herrington and Wills, 2005; Frye et al., 2006; Hess and Kelly, 2007). Despite weak research undergirding the criticisms of seemingly inappropriate preparation program content and outdated approaches (Levine, 2005; Young et al., 2005), new attention became directed at uncovering the attributes of quality leadership preparation and how preparation can influence subsequent school leader practices and their impact.

Until then, most leadership preparation research consisted of small-scale studies of single programs' designs and operations and single cohorts of students' reactions to their experiences and career aspirations (Orr, 2009). One exception was an evaluation (Leithwood et al., 1996) of the relationship between program features and leadership practices for 11 foundation-funded programs, surveying teachers of schools led by program graduates. The authors found that an instructional leadership program focus was strongly associated with the teachers' perceptions of leadership quality.

In response to the criticisms and inadequate research base, several university faculty members from around the country collaborated to study the relationship between program features and graduates' perceptions of what they learned and initial career outcomes (Orr, 2011). They designed and fielded a joint survey of their graduates for 17 programs from 13 institutions. They found that the programs had many of the recommended program features (Jackson and Kelley, 2002; Orr, 2006), but varied somewhat on content coherence, use of active learning instructional strategies (such as problem-based learning, small group work and action research) and internship quality (based on length, breadth and leadership opportunities). The strength of these features was positively associated with graduates' ratings of what they learned about leadership. Having had a challenging internship and content rich program experience was positively associated with graduates' intentions to becoming principals.

At the same time, the Wallace Foundation funded a large-scale study to identify and evaluate. Innovative leadership preparation programs using case studies and a national sample of principals (Darling-Hammond et al., 2010). This research led to a distillation of effective program features that serve as a guiding principles for the field: meaningful authentic and applied learning opportunities; curriculum focused on developing people, instruction and organization; expert mentoring and coaching; and program structures

that support collegial learning, targeted recruitment and selection (Darling-Hammond et al., 2010).

Further analysis of the survey results from this national study, showed that having completed an exemplary leadership preparation program (based on these quality content and internship experiences) was positively associated with principals reports of what leadership they learned and practiced (Orr and Orphanos, 2011). Moreover, frequent use of effective leadership practices was positively related with the principals' ratings of school improvement progress and school effectiveness climate. When controlling for the strength of program and internship quality, these results were even stronger.

An investigation of the subset of principals who had completed an exemplary leadership preparation program in this study analyzed the teachers' perceptions of their principal and their school climate (Orphanos and Orr, 2014). The study found a statistically strong relationship between innovative leadership preparation and effective principal leadership practices, and an indirect influence on teacher collaboration and job satisfaction.

Only one recent study has linked measures of preparation quality to teacher and student outcomes. Campoli and Darling-Hammond (2022) investigated the relationship between program features (as defined by prior work on quality preparation features) and teacher retention and student achievement, drawing on a survey of California elementary and middle school principals (with 0–5 years of experience) linked to state administrative data on schools. They found that overall preparation quality was statistically significantly related to teacher retention, as were program emphases on developing people and meeting diverse learners' needs. Internship quality was significantly associated with student ELA learning gains.

Taken together, these studies demonstrated the feasibility of differentiating preparation quality in programs and documenting the impact of leadership preparation on leadership and school outcomes. They also show the feasibility of evaluating program effects over time, into the field of practices and school outcomes. Nonetheless, while useful in providing direction, such research only provided a general assessment of the relationship between the leadership preparation program features and leadership outcomes, because they are based on graduates' self-reported experiences and practices, as measured by their ratings and perceptions of these. More specific understanding of how and in what ways programs actually develop specific leadership skills and capabilities cannot be determined, given this approach. It is noteworthy, that most of the studies were foundation-funded, while only one was field-initiated.

2.1. Learning from funding for leadership preparation

The accountability-driven focus on educational leadership and its preparation in the late 1990s and early 2000s, led to significant foundation and federal and state governmental investment in leadership preparation often built on recommendations of best practices and innovative approaches (Carr et al., 2003; Orr, 2006; Vanderhaar et al., 2006) and standards-setting efforts (Barnett, 2004). Five major foundation and government grant programs targeted funding for innovative approaches in leadership preparation, often with expectations for near term impact on career advancement and

school improvement. Yet, as will be illustrated, there was little research on the nature and effectiveness of these approaches, despite the opportunity and expected outcomes.

For example, from 2002 to 2013, the Broad Foundation provided \$45 million dollars in grant funds for principal development in eight urban cities, using a residency approach in public and charter schools (Broad Foundation, ND). Similarly, there was no research on the funding's impact, except to report that 80% of the graduates were school leaders two years later and studies based on individual programs (Orr and Barber, 2006; The Urban Educational Collaborative, 2010).

Next, between 2010 and 2015, the US Department of Education provided \$7.7 million in new grants and \$5.7 million in continuing grants to districts, nonprofits and universities for leadership preparation and development efforts. In all there were 41 new awards, primarily to support programs in urban districts. Despite this investment, there was no systemic study of the approaches and impact of these programs for leadership development, except for an analysis of evaluation plans and individual program evaluations (Sanzo et al., 2011).

Then, in 2014 and 2015, 5 school districts and 6 universities or nonprofit organizations received federal Turnaround School Leaders Program three-year grants (\$20.5 million) to prepare current and aspiring leaders to turnaround federally designated low-performing schools. The programs combined targeted recruitment, existing leadership courses, field-based projects and portfolios of accomplishments. Ninety percent of the participants were aspiring leaders and 43 percent were placed in turnaround schools within one year of program completion (Aladjem et al., 2018). Despite this investment, no further evaluation research exists.

In 2016, the federal approach shifted to the Teacher and School Leader Incentive Program, as part of the reauthorized Every Student Succeed Act (ESSA). This program's leadership approach focused on leadership pipeline development, educator evaluation, and creating systems to recruit and retain leaders. Between 2016 and 2021, the government made 63 awards to states, intermediaries, and local districts for a total of \$165 million dollars. An evaluation report of the 2017 grants reviewed what districts invested in, against the grant priorities. All the districts invested in workforce development (primarily on-going development investing in coaching, mentoring and induction). More than half, prioritized a teacher leader program to support other teachers. Only a few used the funds for leadership training for school leaders. Again. despite these significant investments, there was no research on the program approaches, contributions and impact.

Finally, the Wallace Foundation has supported a series of system-change efforts to improve leadership preparation. The first was its principal pipeline initiative (PPI), aimed at strengthening and linking principal preparation, development and support within six urban districts (Turnbull et al., 2013, 2016; Brown, 2019) Their initial findings emphasized the program design features for preparation, selection and evaluation, implementation experiences and challenges, and the overall impact on the districts' leadership pipelines (Gates et al., 2019). Gates et al. (2019) compared PPI district schools with newly placed principals with comparison schools and found measurable differences in student achievement outcomes and principal retention. The emphasis of the research was on the creation and use of specific systems and structures for a leadership pipeline and

less on the unique programmatic and developmental experiences that contributed to the outcomes.

In 2016, the Wallace Foundation funded seven district-university partnerships to redesign preparation programs around earlier identified quality features (Darling-Hammond et al., 2010), with the expectation that such redesign work would yield more, highly qualified leaders who are better able to, improve school outcomes. The Rand Corporation conducted a seven-year study of this University Principal Preparation Initiative (UPPI), but focused at the system level-program redesign, district-university partnerships, district support and state-level efforts. The programs were aligned to exemplary program features with an emphasis on active learning, curriculum coherence and internships that required realistic leadership activities linked to coursework. By working with districts, the programs targeted recruitment for specific applicant qualifications, gain input and perspective on the redesign work and engage in continuous improvement. At the same time, the districts developed leader tracking systems to track current and aspiring leaders (Herman et al., 2022). No evaluation report, however, explains the specifics of the redesigned programs or their relationship to expected outcomes.

Thus, despite significant financial investments in leadership preparation, little new insight has been gained from these public and private investments beyond identification of potential exemplary preparation program features and district partnerships. Thus, if using the Guskey (2000) evaluation framework, the related research is focused on process and not what graduates learned or were able to do as a result. The one exception is the Wallace Foundation's PPI initiative that documents the impact of the preparation investments on student achievement, but without insight into which investments and leadership preparation practices were most influential, and understand how and why. Moreover, much of the research produced from these efforts remains in foundation-funded reports and has not been otherwise published, making their results somewhat inaccessible. Consequently, because of the lack of research about these preparation investments and the narrow availability of the results, little has been learned from these investments. At the very least, future public and private investments in leadership preparation should include investigations of how preparatory experiences foster critical learning and subsequent leadership practices.

2.2. Research on leadership preparation

Independent of these funding initiatives, the leadership preparation field has taken steps to improve the quality of leadership preparation by elevating it as a recognized area for research and innovative development. Such efforts have yielded substantial new insights into the relationship between preparation approaches and candidate outcomes in learning and enacting effective leadership practices. Three key strategies have been instrumental: publications, collaboration and researcher initiative. These strategies have helped to push the field forward to understanding better what works, under what conditions, and with which outcomes.

In 2006, The University Council of Educational Administration (UCEA) launched a research journal—Journal of Research on Leadership Education—dedicated to publishing such research. Since its launch, it has produced four issues annually (with 3–5 articles per issue) for 14 years on a variety of topics including program content,

approaches, organization and outcomes for leadership preparation and development. While other publication outlets exist for leadership preparation research, this is the only outlet dedicated to such research and has been significantly instrumental in making available research accessible.

In 2009, UCEA published a research handbook that included an exhaustive review of research on all facets of leadership preparation (admissions, organization, curriculum, internships, and supports) as well as the history of the field, related policy, and evaluation findings (Young et al., 2009). A new, similar handbook was published by UCEA in 2016, providing updates on pedagogical and curricular approaches, and recent policy influences on leadership and its preparation (Young and Crow, 2016). Both reviews frame what is currently known from available research, the gaps that exist and where further research is most critical.

Current research on leadership preparation continues to be primarily reliant upon individual program studies or small-scale investigations of individual strategies, content (leadership theory, supervision, research methods, law, moral reasoning, social justice, and culturally responsive practice) and program models (masters or doctoral). Much of the research has been and continues to be challenged by the lack of comparison groups, limited consideration of controls, and measurement issues (Orr, 2009).

The one significant exception was a field-initiated research collaboration among leadership preparation program faculty, first convened through the American Educational Research Association (AERA) Learning and Teaching in Educational Leadership Special Interest Group (LTEL-SIG) and later expanded in collaboration with UCEA (Orr, 2008). Over several years, faculty from 13 leadership preparation programs developed a shared research agenda—to evaluate the comparative benefits of their programs' features on their graduates' leadership learning, dispositions, career plans, and nearterm leadership outcomes. By using Guskey's (2000) evaluation framework, they co-constructed and individually fielded a follow-up survey of their graduates at their institutions, that included selfreported measures on ratings of their program experiences, what they had learned and their career intentions. Through this collaborative work, they found that most programs had the recommended program features and these were positively associated with graduates' learning in five areas of leadership, program satisfaction, and their beliefs about the principalship (Orr, 2011).

Taken together, through the published research handbooks and dedicated journal, leadership preparation has become a recognized field of research. Despite these advances, however, educational researchers still struggle to conduct research that can investigate the relationship between preparation, candidates' experiences and their leadership outcomes. Much of the research is limited to exploring the relationship between specific program features and candidates' reactions and experiences, within individual programs. The field-initiated research collaboration demonstrates how the field can overcome the limitations of program-specific research without external funding support.

2.3. Studies of the field broadly

Despite these resource and methodological limitations, a few researchers have been able to track improvements in leadership preparation practice to determine whether and how programs may be changing in alignment with recommended features. While limited to self-reports by program chairs and current principals, these studies provide insight into the state of current leadership preparation practice.

First, Robey and Bauer (2013) surveyed chairs of all nationally accredited university programs about the addition of design characteristics of their programs in 2002 and 2010. They found that 75–90 percent of the program chairs reported that they already had most quality program features (as defined by research on best practices) in 2002. The most striking shifts that they found during this period were that programs reported increased use of assessment data systems, use of assessment data for program improvement, addition of on-line courses, and partnerships with school districts (which most had by 2010). Most chairs agreed or strongly agreed that their programs' field experiences had improved with increased emphasis on alignment to national leadership standards, required projects, and integration with coursework. Robey and Bauer (2013) concluded that universities have responded substantially to the calls for improved preparation, standards and accreditation requirements and research on quality program features.

Second and more recently, Darling-Hammond et al. (2023) completed a national study of principal preparation program features as reported by current principals (who likely completed their programs at least 3-5 years earlier). The authors found that over 80 percent of a national sample of surveyed principals reported having had a least minimum access to important leadership preparation content areas, but less so in areas related to teacher recruitment and retention, deeper student learning, student physical and mental support and meeting the needs of English language learners. Yet, authentic learning and field experiences were less common, with few reported having completed a field-based project, and just over half reported that they had problem-based program experiences. While the majority (77%) had internship experiences, only about half agreed that it was adequate preparation or enabled them to take on typical educational leadership responsibilities (Darling-Hammond et al., 2023). The authors noted that these patterns were slightly better than the preparation experiences surveyed principals reported ten years earlier, suggesting modest field progress in improving preparation quality.

A comparison of the results from the two studies—one of department chairs and one of principals—yields similar results on some of the common features of leadership preparation, showing that the majority of programs incorporate important content areas and support adequate or better field experience. The major differences in the two sets of findings relates to which features were investigated and field-based project experiences.

3. New directions

Given that most research that investigates how preparation develops aspiring leaders is limited to small scale studies, it is important to highlight areas of current research. Three new areas of focus have emerged in recent years, focused primarily on specific content and strategies and related learning theories. The exception is larger scale studies on assessments and their use in evaluating candidate readiness, as discussed below.

One is the pedagogy of leadership preparation and development that explores experiential learning modalities: active learning (Cosner, 2020; Honig and Honsa, 2020) and simulated practice (Staub and Bravender, 2014; Gilbert, 2017; DeJong and Grundmeyer, 2018) Such a focus also extends to the "pedagogy" of the internship experience, in the content (Sutton, 2019; Drake, 2022), in emphasis on diversity issues (Figueiredo-Brown et al., 2015), and in the means of mentoring and coaching in an internship or field-based experience (Jamison and Clayton, 2016; Thessin et al., 2020). These studies look carefully at unpacking what happens inside these experiences to learn more about the substance of learning that is being created, and advocating for more extensive experiential learning as a superior modality for leadership development.

The second new area of focus is on developing equity-minded, socially just leaders as a priority for leadership preparation (Merchant and Garza, 2015; Berkovich, 2017; Jones and Ringler, 2021). Building on various conceptions of social justice leadership are recent investigations of pedagogical approaches to its development, through reflection (Genao, 2021) and appreciative inquiry (Dos Santos, 2022).

The third is on the assessment of leadership candidates and their readiness for initial school leader work. The two most common forms of state licensure assessment are the School Leaders Licensure Assessment (SLLA) developed by the Educational Testing Service (ETS) to assess the candidate's knowledge (Grissom et al., 2017) and as of 2018 required in 18 states and performance assessments as developed and used in a few states (e.g., California and Massachusetts) (Orr et al., 2019; Reising et al., 2019). Grissom et al. (2017) analyzed ten years of all Tennessee SLLA test takers and found different outcomes based on the passing score rate used. While higher SLLA scores were associated with the likelihood of being hired as a school, the authors found no relationship with principal job performance ratings or job changes and could not identify program type differences.

Performance assessments appear to be more promising indicators of future leadership performance. An evaluation of those who completed Massachusetts' Performance Assessment for Leaders (PAL) (a four-part, field-based performance assessment) showed that completers of the assessment with higher passing score requirements advanced into initial leadership positions more quickly than did those with lower or no requirements. Moreover, a comparison of assistant principals licensed before and after the PAL requirement showed that those who completed PAL were more likely to advance to the principalship or be retained in their position within two years and to be rated exemplary on their educator evaluations (Orr and Hollingworth, 2023). Again, no systematic differences by preparation program type were evident.

Modest efforts exist at the program level to design and test performance assessments. Doss et al. (2021) investigated the relationship between performance assessment measures of four sets of principal competencies during preparation in a national intermediary program and subsequent school outcomes for those who advanced to principal positions. They found a positive association between human capital competency ratings and principals' student performance gains, and between cultural capital competency ratings and principal placement and retention within two years.

In summary, these current areas of research emphasis the important of investigating how preparation approaches lead to improved learning and highlight the feasibility of designing independent measures of leadership readiness. Missing is the link

between preparatory experiences and valid measures of readiness. More research that unpacks what happens within preparatory experiences is needed, particularly when linked with outcomes.

4. Implications

Several implications can be drawn from these findings. First, available survey research about preparation program content and design shows that the field has moved toward enacting exemplary program features and that the greater such adherence, particularly for coherent content, active-learning pedagogy and authentic field experiences, the greater the quality leadership and school improvement results. But a gap exists between investments in innovative preparation and the need for systematic and large-scale evaluation of results that unpacks how preparatory content and experiences influences learning and leadership skill development. Second, there continues to be considerable scholarly interest in innovative practices, as illustrated by the studies noted. But most of the focused evaluation research is of small-scale endeavors. Federal and foundation funding that invests in large scale efforts does not sufficiently evaluate their impact on the leaders that are being prepared or the schools these leaders serve. Ideally, future public and private investments would incorporate Guskey's (2000) framework to provide more in-depth evidence of how preparatory features functions, what is learned and what leaders are able to apply in practice. Recent developments in standardized leadership performance assessments expands ways in which the effects of program approaches can be evaluated in the near term, particularly against independent assessments.

More is needed, however, to research more finely how and in what ways innovative approaches positively impact graduates' leadership practices and the school results their work yields. In the absence of public and private funding, perhaps it is time for programs to engage collaboratively again to co-construct an evaluation of their innovative approaches and outcomes, adopting shared measures and methods,

aligned to Guskey's (2000) framework. Such collaborative research would enable scaling up inquiry to better understand how quality leadership preparation, through rigorous and strategic program content, pedagogy, field experience and assessment can and does improve leaders' capacity to improve student learning outcomes, particularly for more equitable and just schooling.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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